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ABSTRACT

Materials in this curriculum guide represent a selection of the major transportation consumer topics and ideas and are designed to set the stage for more intensive transportation consumer education curriculum development and teacher efforts. (Eleven manuals covering the four transportation topics of public transportation, transportation and the environment, transportation safety, and bicycles for elementary, secondary, and adult levels are available separately and may be used in conjunction with this curriculum guide or independently of it.) The guide consists of three major sections: introduction, curriculum units, and resources. The introduction presents rationale for developing transportation consumer education curricula and conceptualizes the complex field of use and purchase of transportation goods and services. A series of twenty units on key transportation consumer education topics are presented. Each contains rationale, activities index (objectives, suggested classroom activities, and suggested teaching methods), and a bibliography of teacher, student, and audiovisual materials. The resources section contains instructions for developing transportation consumer education curriculum units; discussion of appropriate teaching methods; a cross-reference of transportation topics and other subject areas; and miscellaneous bibliographies. (TA)

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TRANSPORTATION CONSUMER EDUCATION

CURRICULUM GUIDE

by

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with
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U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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INTRODUCTION

1. AN APPROACH TO TRANSPORTATION CONSUMER EDUCATION

a. Rationale for Teaching Transportation Consumer Education

> Nearly everything Americans do, from mailing a post-card to walking on the moon, depends on transportation. Transportation is essential for the supply of food, clothing and shelter, for national defense and employment, for education and recreation, for the international exchange of goods and services.*

While every American is provided with the necessities and amenities of modern life through an intricate freight-carrying network, we think of transportation most readily in terms of moving people, not products, and for good reason. Millions of us commute to work every day by car, bus, train, or subway. Moreover, 21 million youngsters travel on school buses every day. Americans use a variety of transportation modes for other purposes, including shopping, recreation, tourism, and moving. The average family changes residence once every five years and makes use of one of the many thousands of for-hire companies that provide domestic surface transportation. In addition, Americans travel more than 1.7 trillion miles by passenger cars or trucks every year, while AMTRAK's 250 trains cover 26,000 miles and service 484 communities with more than 7 million people annually using the New York to Washington run alone. There are also 950 intercity bus companies whose 20,600 vehicles travel 1.1 billion miles each year, while commercial aircraft transport over 210 million passengers annually.

Americans are highly dependent on transportation services for recreation purposes, too. Not only are vehicles used to get to places of entertainment, many vehicles are themselves forms of recreation. For example, there are approximately 7.3 million registered boats in the country, not counting rowboats and canoes. Seven and one-half million motor homes, truck campers, and travel and camping trailers are on the roads. Snowmobiles, dune buggies, and home-built vehicles have become widespread in the past few years.

Americans also relax on two-wheeled vehicles: there are 100 million bicycles and nearly five million motorcycles in the country, many of which are used for commuting as well as recreation.

---

*John Burby, The Great American Motion Sickness, Little, Brown and Co., (Boston: 1971), page 3.

The most frequently used form of transportation in the nation, however, is walking. We sometimes forget that pedestrians utilize the single most common mode of travel.

Finally, the overwhelming importance of transportation in our lives must be assessed not only in terms of movement of goods and people, but also in relation to the millions of jobs transportation provides. Transportation facilities and vehicles require manufacturers, builders, operators, and mechanics, while they also create thousands of employment opportunities in related industries, from foundries which produce steel for vehicles to insurance companies which provide automobile insurance to health care systems which treat travel-related injuries.

For all these reasons it is important for students to become aware of transportation as it affects their lives, to learn to be wise purchasers and users of transportation goods and services, and to develop skills to promote constructive use and appropriate expansion of all forms of transportation in their communities and beyond.

In recognition of both the importance of transportation consumption in America and of the relative lack of educational attention paid to this aspect of consumerism in the past, the Department of Transportation, Office of Consumer Affairs, awarded a contract to Abt Associates Inc. to develop a transportation consumer education Curriculum Guide and eleven grade level (K-3, 4-6, 6-9, 9-12, and Adult) curriculum manuals. The following twelve volumes[1] on transportation consumer education are currently available.

- Transportation Consumer Education: A Curriculum Guide for Grades K-12 and Adult
- TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades K-3
- TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades 4-6
- Transportation Consumer Education for Adults: Mini-units and Learning Activities
- PEDAL ON! Mini-units and Learning Activities on Bicycling for Grades 6-9
- PEDAL ON! Mini-units and Learning Activities on Bicycling for Grades 9-12

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[1] These volumes may be order from
Abt Publications
55 Wheeler Street
Cambridge, Massachusetts 02138

- RIDE ON! Mini-units and Learning Activities on Public Transportation for Grades 6-9
- RIDE ON! Mini-units and Learning Activities on Public Transportation for Grades 9-12
- GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9
- GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12
- Transportation and the Environment in Harmony: Mini-units and Learning Activities for Grades 6-9
- Transportation and the Environment in Harmony: Mini-units and Learning Activities for Grades 9-12

This volume constitutes the Curriculum Guide. The eleven manuals have been packaged separately and may be used in conjunction with the Guide or independently of it.

The materials in the Guide represent a selection of the major transportation consumer topics and ideas, since space and time did not permit the inclusion of materials on every issue of concern to users and purchasers of transportation goods and services. The materials are thus illustrative, not definitive. They are designed to set the stage for more intensive transportation consumer education curriculum development and teaching efforts by school systems, individual teachers, and government agencies.

b. Using the Curriculum Guide

The Curriculum Guide can be used for two major purposes.

PURPOSE ONE

Teachers and curriculum coordinators can use the Guide to develop curriculum units around topics in transportation consumer education.

The best method for using the Guide for this purpose is to

- read the Introduction to gain an overview of the entire transportation consumer field;
- read Resource 1 quickly to become familiar with the Guide's general approach to curriculum development;
- browse through Resources 2-5 to see what is available for assistance in the task of curriculum development;
- reread Resource 1 carefully and begin the process of curriculum development.

PURPOSE TWO

Teachers can also use the Guide as a resource to the 11 manuals already developed. Although the 11 manuals can be implemented independently of the Guide, teachers may find it useful to read two particular sections of the Guide as they prepare for using any of the manuals: Section 2 of the Introduction, to understand the place of each manual within the context of the entire spectrum of consumer topics and concerns, and Resource 2, to understand how to employ various teaching methods and media in a transportation consumer education curriculum.

c. Contents of the Curriculum Guide

The Guide consists of three major sections: Introduction, Curriculum Units, and Resources. A summary of the contents follows.

INTRODUCTION

1. An Approach to Transportation Consumer Education presents the rationale for developing transportation consumer education curricula, indicates the purposes of the Guide, and explains its contents.
2. A Conceptual Framework for Transportation Consumer Education conceptualizes the complex field of use and purchase of transportation goods and services.

CURRICULUM UNITS

A series of 20 units on key transportation consumer education topics. Each unit has three sections:

1. Rationale, which explains why teaching the topic is important;
2. Activities Index, which suggests classroom activities; and
3. Bibliography, which lists teacher materials (guides, mini-units, etc.), student materials (pamphlets, books, etc.), and audiovisual materials. (Bibliographic entries are numbered consecutively from the beginning to the end of the Guide.)

RESOURCES

1. Instructions for Developing Transportation Consumer Education Curriculum Units present a suggested curriculum development process that focuses on student concerns as the starting point for curriculum development.

2. Teaching Methods explain how to employ various teaching methods and media in a transportation consumer education curriculum.

3. Subject Area Considerations and Cross Reference indicate what transportation consumer topics can be appropriately taught in which subject areas.

4. Miscellaneous Bibliographies suggest general transportation literature, general works on consumer behavior, periodicals, and sources of free and inexpensive materials.

2. A CONCEPTUAL FRAMEWORK FOR TRANSPORTATION CONSUMER EDUCATION

The purpose of the conceptual framework is to organize the field of transportation in a manner that will be most useful for understanding and teaching transportation consumer education. In order to do this, we have identified the transportation consumer and the product that is being used.

Anyone who takes a trip is a transportation consumer. Whether he or she is walking, driving a car, or moving household goods, the trip maker is using and influencing the transportation system. All segments of the population, from the six-year-old bicyclist to the daily subway commuter, can benefit from knowledge about the resources, skills, and problems involved in traveling. A transportation consumer education curriculum must therefore be broad enough to include all forms of travel and trip purposes and flexible enough to be useful to any group of students.

What does the consumer need to know in order to use the transportation system effectively? To begin with, he must understand that consumption of transportation goes beyond the financial considerations involved in the purchase of an automobile. Traveling is the product of interaction among three elements:

1. Individual personal behavior such as driving a car, using an ambulance, or repairing a bicycle.
2. The transportation system, which refers to the modes, technologies, physical facilities, vehicles, and operating policies that provide transportation to a community--for example, available transportation might include conventional automobiles, buses, and public transportation that operate on a network of highways, streets, and subway lines. Important operating policies would include traffic control, prices for buses and subways, and schedules and routes for transit service.
3. The social-political system, which includes all social, economic, and political activities in a community; for example: different levels of political institutions and policies, migration of people from the center city to the suburbs, location of low-income housing, unemployment.

When making a transportation decision, therefore, the transportation consumer considers:

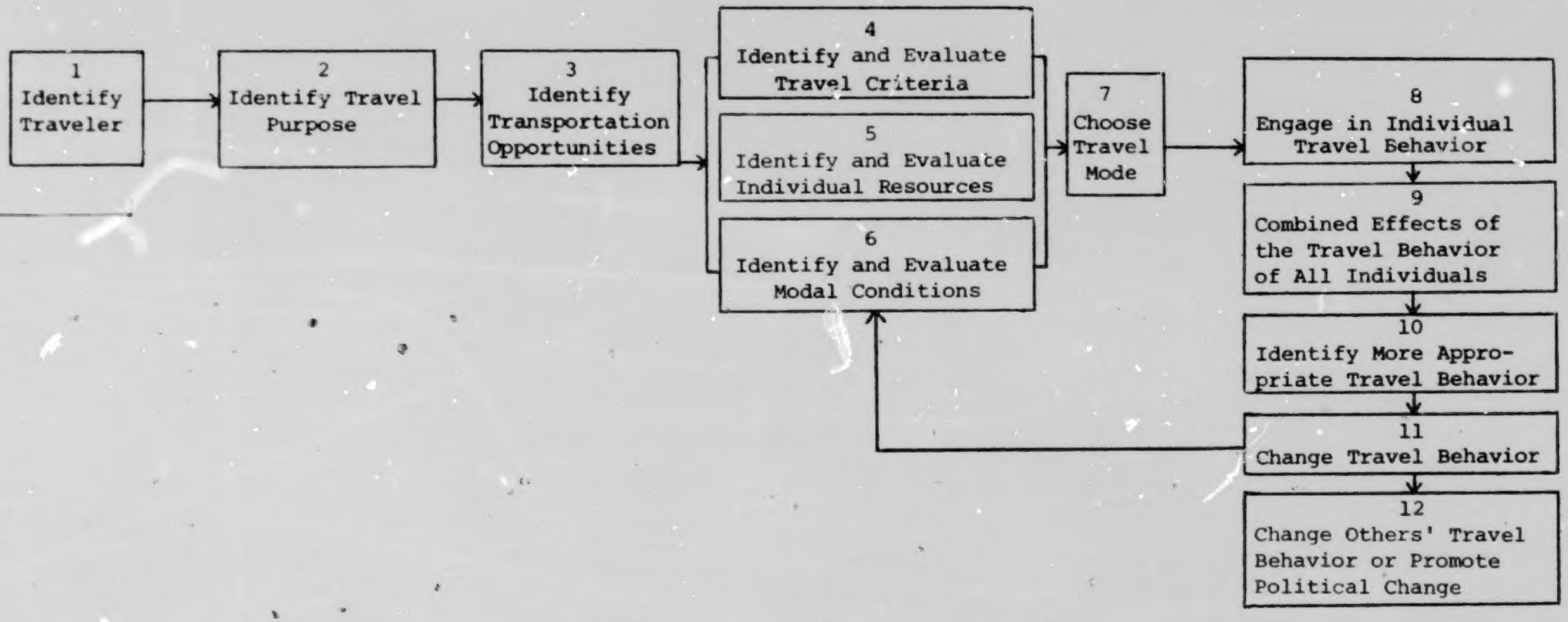
1. his personal travel needs, finances, physical abilities, and attitudes (individual personal behavior);
2. what transportation is available to him and how it best satisfies his individual travel criteria (the transportation system); and
3. how his behavior affects and is influenced by social and political considerations (the social-political system).

Each type or "mode" of travel can be evaluated according to these three factors. (Transportation experts refer to this combination of factors as the "level of service" provided by the travel mode.)

In the short term, it is the level of service (e.g., convenience and cost), not just the object of the ride (e.g., getting to work), that the transportation consumer buys each time he makes a travel decision. The preferred level of service will vary according to how badly the trip maker wants to get to his destination and how much he values his money, time, and convenience. For example, an individual who values time more than money will often choose a method of transportation that minimizes travel time despite its higher costs (e.g., using taxis). However, if the act of travel itself is valued (e.g., driving a car), the same trip maker will usually ignore considerations of time, cost, and convenience and will select a method of transportation that is fun, builds his ego, displays his wealth, and so on.

Although immediate transportation choices are constrained by the existing transportation and social systems, in the long run the consumer's behavior can in turn influence the overall transportation market. In addition to satisfying individual needs, transportation consumer decisions express preferences for certain social goods. Different transportation options have differing implications for society in terms of the environment, economic and social development, and social welfare goals. For example, automobiles may contribute to air pollution, promote suburban industrial development, and cause families to be relocated due to highway construction. These social consequences become part of the consumer's decision making to the extent that they affect him directly through personal experience (he coughs from car pollution) or indirectly through concern for social welfare (he opposes destroying housing for highway construction). He is buying not just a car or a bicycle but also the social consequences of his particular travel decision.

The goal of transportation consumer education is to enable the student to understand and evaluate his own and others' travel behavior so that he can modify them both for personal and social reasons. Therefore, an appropriate way of organizing the field of transportation studies is on the basis of individual travel behavior and social-political behavior. In this way, it is possible to make explicit the factors contributing to individual and group travel behaviors as well as to those factors that have important social consequences. Figure 1 illustrates how a trip maker decides how and why he travels and the relationship between that individual travel behavior and social and political behavior. The decision to use transportation follows a definable process of identifying important factors, making judgments, and making trade-offs. This decision-making process involves considering both transportation and personal criteria. It includes information, experience, prejudices, skills, tastes, and fears. When making a transportation decision the transportation consumer moves from personal criteria (cost, time, convenience) to system ones (availability of buses and subways, schedules and routes, etc.). The experience of transportation and perception of social and system consequences of transportation then provide us with information that can influence both our individual travel behavior and the community's social and political behavior.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2
Identify Travel Purpose
3
Identify Transportation Opportunities
4
Identify and Evaluate Travel Criteria
5
Identify and Evaluate Individual Resources
6
Identify and Evaluate Modal Conditions
7
Choose Travel Mode
8
Engage in Individual Travel Behavior
9
Combined Effects of the Travel Behavior of All Individuals
10
Identify More Appropriate Travel Behavior
11
Change Travel Behavior
12
Change Others' Travel Behavior or Promote Political Change

FIGURE 1

TRANSPORTATION CONSUMER BEHAVIOR PROCESS

THE TRANSPORTATION CONSUMER
DECISION-MAKING PROCESS

1. Identify Traveler

The first step in understanding transportation decision making is to identify the traveler. The population characteristics that are most relevant are age, socioeconomic status, employment, and special characteristics such as physical handicaps or inability to operate a particular mode. These factors will affect not only the individual's or group's travel needs but also the availability of certain types of transportation. For example, there is a large group of people who do not have the option of using an automobile, including low-income householders, those too young to drive, and those physically unable to drive. Obviously, their travel behavior will differ from that of other groups.

2. Identify Travel Purpose

Clarifying the trip purpose is a key factor in the individual's transportation decision making since different purposes have different requirements. There are several basic types of trips: to work or school, shopping, personal business, and social/recreational. These purposes vary in terms of when the trip must be taken, travel time from origin to destination, flexibility, etc. Obviously, the work trips must depend on the start and finish of the work day. Shopping, on the other hand, may be done anytime during store hours but may require visiting and parking in several different locations.

3. Identify Transportation Opportunities

Once the transportation consumer has decided to make a certain kind of trip, he or she must find out what transportation is available. Identifying the supply of transportation includes finding out what modes exist (automobile, bus, subway, airplane, etc.) and whether routes, schedules, and other conditions make them available for this trip. In communities where public transit in any form is limited or nonexistent, most transportation consumers will have only two options: walking or driving. Sometimes people are denied mobility simply because the transportation that they are able to use is not supplied. This problem is particularly critical when regional or long-distance travel is considered.

4. Identify and Evaluate Travel Criteria

Another part of the decision-making process is the consideration of the individual's criteria for travel. These include a whole set of attitudes and values associated with taking the trip itself. Some important criteria include safety, reliability of arrival at destination, convenience and comfort, condition of vehicle, amount of traffic and congestion, and aesthetic satisfaction. Usually evaluations of these criteria are based on past experience or information from other sources. For example, one of the major problems faced by supporters of public transportation is overcoming its poor performance record in the eyes of the public.

5. Identify and Evaluate Individual Resources

The individual transportation consumer also evaluates the expected cost of a trip and the resources that he has available to him. In this context, the term "cost" includes more than just money. It also refers to the time and human resources expended during travel. It is important to consider these factors since people value them differently. For example, the wealthy business executive prices his time at a higher rate than the average worker and thus may be willing to spend more money in order to travel by faster modes.

Some of the most important human resources that must be considered are the skills necessary to accomplish a trip. When talking about a self-operated mode (e.g., car, bicycle), such skills include the ability to acquire and operate the vehicle successfully in addition to the ability to plan and carry out trips. If the consumer is interested in using other forms of transport (e.g., bus, train, truck, emergency vehicles) he considers his ability to make arrangements for their use, plan trips, and deal with any issues or problems that might arise. Other existing human resources to evaluate include the potential physical effort of travel and emotional reactions to mobility (e.g., fear of flying).

6. Identify and Evaluate Modal Conditions

At the same time he is reviewing his existing resources for travel, the transportation consumer is evaluating the requirements of each mode. These include monetary and time costs, comfort and convenience, and the skills required to use the mode successfully.

7, 8, 9. Choose Travel Mode; Engage in Individual Travel Behavior; Combined Effects of the Travel Behavior of All Individuals

Based on his evaluation of the transportation system, individual resources, and criteria, the consumer will choose a mode and take the trip. The combination of individual trips in an area produces a total or aggregate pattern of travel behavior. This behavior can be characterized in a number of ways including analysis according to trends in origin and destination (e.g., suburbs to central city); time of travel (e.g., 65 percent of morning traffic from 8:00 a.m. to 9:00 a.m.); response to travel time (less travel as travel time increases); trip purposes (e.g., work, recreation, etc.); and modes. The overall effects of travel behavior produced by individual trip making lead to a variety of social and system conditions. Some of the social issues are air and land use and the relocation of families and neighborhoods. These effects can generally be traced to specific characteristics of the transportation system, such as the technology, type of vehicles, location and pattern of network (highways, subways, and bus routes), and operating policies (prices and schedules). These conditions can be either supported or challenged by the travel choices made by the community.

10, 11. Identify More Appropriate Travel Behavior, Change Travel Behavior

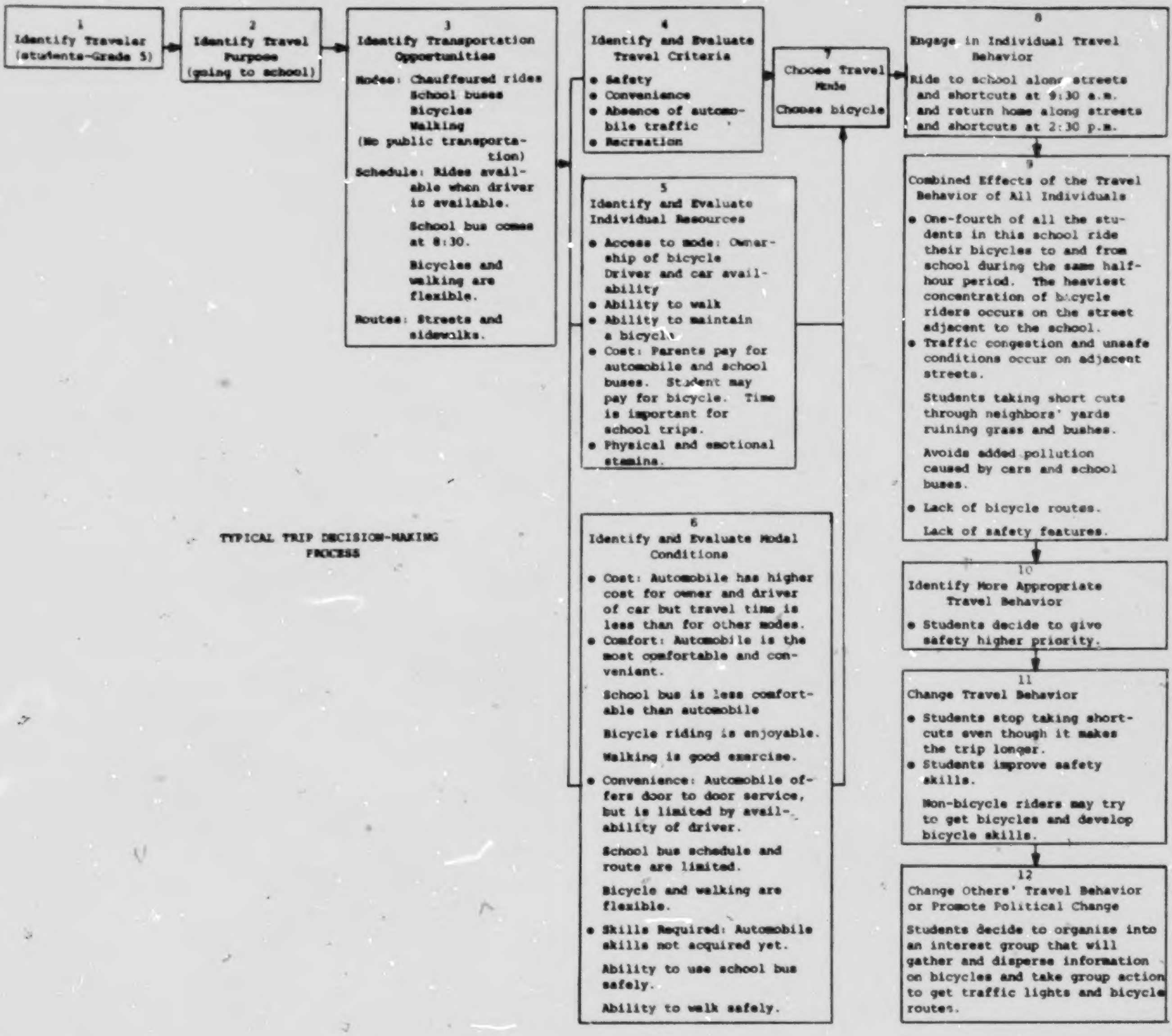
In response to the social or system conditions, the transportation consumer may decide to change his individual travel behavior. This would probably mean a change in priorities for travel criteria and individual resources or a change in the evaluation of modal conditions. For example, a commuter who is concerned about air pollution from auto emissions may decide to use public transportation, even if it is less convenient and less comfortable.

12. Change Others' Travel Behavior or Promote Political Change

In addition to making a decision about individual travel behavior, the consumer may feel that certain problems require action on an individual, community, or national level.

Generally these actions will be encouraging friends or relatives to use more appropriate travel behavior and responding to social and system issues that are of metropolitan or regional concern or that require massive funding. Examples of these issues are pollution control or development of new transportation systems. Availability of skills in community participation or individual political action skills will play an important role in the decision to take action.

The chart on the following page illustrates how a typical trip maker decides how to travel and take his trip. A class of fifth graders was arbitrarily identified as the group of transportation consumers. By defining such a limited group, it is possible to identify their particular concerns and relate them to personal, social, and political issues. In this case, the students' specific transportation concern is posited as making the trip to and from school. The teacher and community are concerned with teaching safety and civic responsibility. The flow chart presents a way of relating these student, teacher, and community concerns and highlighting other potentially interesting subjects (e.g., purchase and maintenance of a bicycle).



1
Identify Traveler
(students-Grade 5)

2
Identify Travel Purpose
(going to school)

3
Identify Transportation Opportunities

Modes: Chauffeured rides
School buses
Bicycles
Walking
(No public transportation)

Schedule: Rides available when driver is available.

School bus comes at 8:30.

Bicycles and walking are flexible.

Routes: Streets and sidewalks.

4
Identify and Evaluate Travel Criteria

- Safety
- Convenience
- Absence of automobile traffic
- Recreation

5
Identify and Evaluate Individual Resources

- Access to mode: Ownership of bicycle
  Driver and car availability
- Ability to walk
- Ability to maintain a bicycle
- Cost: Parents pay for automobile and school buses. Student may pay for bicycle. Time is important for school trips.
- Physical and emotional stamina.

6
Identify and Evaluate Modal Conditions

- Cost: Automobile has higher cost for owner and driver of car but travel time is less than for other modes.
- Comfort: Automobile is the most comfortable and convenient.

  School bus is less comfortable than automobile

  Bicycle riding is enjoyable.

  Walking is good exercise.
- Convenience: Automobile offers door to door service, but is limited by availability of driver.

  School bus schedule and route are limited.

  Bicycle and walking are flexible.
- Skills Required: Automobile skills not acquired yet.

  Ability to use school bus safely.

  Ability to walk safely.

7
Choose Travel Mode

Choose bicycle

8
Engage in Individual Travel Behavior

Ride to school along streets and shortcuts at 9:30 a.m. and return home along streets and shortcuts at 2:30 p.m.

9
Combined Effects of the Travel Behavior of All Individuals

- One-fourth of all the students in this school ride their bicycles to and from school during the same half-hour period. The heaviest concentration of bicycle riders occurs on the street adjacent to the school.
- Traffic congestion and unsafe conditions occur on adjacent streets.

  Students taking short cuts through neighbors' yards ruining grass and bushes.

  Avoids added pollution caused by cars and school buses.
- Lack of bicycle routes.

  Lack of safety features.

10
Identify More Appropriate Travel Behavior

- Students decide to give safety higher priority.

11
Change Travel Behavior

- Students stop taking shortcuts even though it makes the trip longer.
- Students improve safety skills.

  Non-bicycle riders may try to get bicycles and develop bicycle skills.

12
Change Others' Travel Behavior or Promote Political Change

Students decide to organise into an interest group that will gather and disperse information on bicycles and take group action to get traffic lights and bicycle routes.

TYPICAL TRIP DECISION-MAKING PROCESS

CURRICULUM UNITS

CURRICULUM UNITS

The following section consists of 20 independent curriculum units, one each on the major definable areas of transportation consumer education. Each unit has three parts:

1. a rationale for explaining why it is important to teach that particular topic;

2. an index of activity suggestions (see the more detailed explanation of this section below); and

3. bibliographies for teachers and students and audiovisual materials that can be ordered for use with the unit (see the more detailed explanation of this section below).

The Activity Index is organized into four sections:

- The major topics on transportation consumerism and the grades in which they may be appropriately taught.

- The teaching objectives appropriate to each topic. Objectives have been correlated by number with activities designed to help achieve them. (The numbers which follow each objective refer to the sample activities which address that particular objective.)

- Sample activity descriptions designed to achieve the objectives. A number in parentheses after an activity indicates that a source in the bibliographies provided the idea for the activity.

- Teaching methods designed to assist the teacher in developing detailed classroom activities from the capsule descriptions provided. These methods may be found in the relevant section in Resource 2, Teaching Methods, which the teacher can consult for information about how to implement the particular teaching method used in the activity.

The Bibliographies are divided into three sections:

1. Teacher Materials (guides, textbooks, pamphlets, reports, periodicals, games and bibliographies);
2. Student Materials (pamphlets, books); and
3. Audiovisual Materials (films, filmstrips, multimedia kits).

The individual bibliographic entries are presented in the following format:

**76.	TITLE OF WORK, date of publication. Grade level of intended audience.[1] Number of pages or list of materials. Price.
Type of material	Texted description of material with evaluation of material's quality (except for audiovisual materials and supplementary materials) and relevance for transportation consumer education.
	Source from which material may be obtained.

(Note: Entries are numbered consecutively from the beginning to the end of the Guide.)

Star System

For purposes of convenience, many bibliographic entries (except for audiovisual materials, none of which has been evaluated) have been rated by the designation of stars next to the title of the work (see example above). The stars represent the following evaluation:

No stars:	material is useful, but fair
(*) One star:	material is good
(**) Two stars:	material is very good
(***) Three stars:	material is excellent

It should be kept in mind that these evaluations are an estimation of the material's quality and relevance. As such, a low rating does not per se indicate the material is poor. It may be excellent but not relevant.[2]

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[1] A grade level indication of "adults" refers to people 18 years and older, including college students.

[2] The authors' criteria for evaluating materials may be found in the Appendix.

In addition, any absences of appropriate bibliographic materials are due to the authors' oversight.

Teachers seeking recently published materials on transportation should contact the Office of Public Affairs, Department of Transportation, Washington, D.C. 20590. This office can advise you concerning availability of up-to-date reports and other publications.

1. AUTOMOBILE INSURANCE

Most Americans who own cars insure them; such insurance is a major and continuing expense for these drivers. Many drivers are not fully aware of all the insurance options available to them, such as deductibles, protection against uninsured motorists, medical benefits, and fire and theft protection. By selecting the right options, the driver will have the best possible coverage if faced with an accident involving damage or injury. A driver who purchased inadequate insurance may suffer enormous financial loss, not only to repair or replace a damaged vehicle but for medical expenses as well.

Consumers also need to learn how to shop among different insurance companies to select the least expensive one that provides the best benefits. For example, certain companies offer discounts to multiple car families and to farmers. The advent of no-fault insurance requires new educational efforts to ensure an informed buying public for this new approach.

Many drivers are not clear about what their rights are in cancelling insurance. In addition, many people are frustrated when it comes time to collect benefits by what they feel are unfair insurance company delays, nonpayments, or inadequate payments.

A unit on automobile insurance would help present and future car owners learn to select the proper insurance, spending their money wisely while at the same time receiving adequate coverage.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
1. Automobile Insurance	Students demonstrate knowledge, skills, and attitudes about automobile insurance in order to make responsible decisions about 1. selecting appropriate coverage (1-4,7,8,12,13,15,16);* 2. purchasing insurance (1,2,4,6,9,11,13);* 3. cancelling insurance (1);* 4. seeking redress of grievances (1,5,9,10,11);* and 5. no-fault vs. traditional coverage (5,14).*	1. Students develop Monopoly-type game in which players throw dice and move around the squares of a game board. For example, one block can require a player to decide whether to spend $100 for collision insurance on his ten-year-old car. Another square can involve players who land on it in an accident requiring them to pay for car repairs before they may throw the dice again. (Secondary/adult)	Games
		2. Students role-play situation in which an insurance salesman negotiates with a car owner who wants to obtain the maximum insurance at the lowest cost. Students first stipulate what kind of auto the "owner" wants to insure and range of costs within which "insurance salesman" can negotiate. (Secondary/adult)	Role-play
		3. Students write their own insurance policies, decide how much they should have to pay for these policies, and submit them to insurance company representatives for their evaluation. (Secondary/adult)	Writing
		4. Students perform math problems around issues of insurance costs and benefits. (Secondary/adult)	
		5. Students discuss instances in which they or people they know have been refused automobile insurance and determine the reasons, whether they were valid, and how citizens should respond to refusals. Follow-up discussion is held on extent to which no-fault insurance would have prevented such refusal. (Secondary/adult) (175)**	Discussions

*Numbers refer to sample activities which address this particular objective.

**Number refers to Bibliography entry that provided idea for the activity.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
1. Automobile Insurance (contd.)		6. Class divides into different groups, some of which call insurance companies requesting insurance rates for adults, others for teenagers of both sexes. Students compare results and interview insurance companies and read literature to determine why the rates are different. Students then discuss the legitimacy of the rate differentials. (Secondary/adult)	Independent study
		7. Students investigate insurance policies owned by their parents and compare them anonymously in terms of coverage, cost, and type of company providing insurance. Students seek to explain any differences. (Secondary/adult) (175)*	Research
		8. Students develop or are given profiles of different types of car owners and in small groups agree on the best policy for that owner considering such variables as age of car, who drives it, value of car, and family finances. (Secondary/adult)	Research
		9. Students write or telephone several different insurance companies requesting the cost of a specific type of coverage for the same car. Students compare results and contact companies a second time for explanations of differences in costs. (Secondary/adult) (175)*	Research
		10. Students debate the topic, resolved that teenage girls are better insurance risks than teenage boys. (Secondary/adult)	Debates

*Numbers refer to Bibliography entries that provided the ideas for the activities.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
1. Automobile Insurance (contd.)		11. Students discuss categories of drivers whom they would consider poor insurance risks if they were asked to insure them. Students defend any higher rates they would charge. (Secondary/adult) (175)*	Discussion
		12. Students discuss or teacher lectures on the place of automobile insurance within the context of the entire field of transportation and identify the important interfaces between automobile insurance and other transportation concerns and topics. (Secondary/adult)	Lecture
		13. Students read A Family Guide to Property Insurance and develop a check list of steps to follow in determining auto insurance needs and buying auto insurance. (Secondary/adult) (2)*	Reading
		14. Students research advantages and disadvantages of no-fault insurance. (Secondary/adult)	Research
		15. Students research types of discounts insurance companies give and decide whether they are (or will be) eligible for them, and how much of a saving is involved. (Secondary/adult)	Research
		16. Students invite insurance company representatives to class to discuss the advantages of insurance and of different types of insurance--collision, theft, etc. (Secondary/adult)	Lecture

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*Numbers refer to Bibliography entry that provided the idea for the activity.

BIBLIOGRAPHY

a) Teacher Materials

1. WILL "NO FAULT" BRING CHEAPER, BETTER AUTO INSURANCE?, 1972. Grades 10-adult. 2-page teacher's guide; 40 copies of 3-page brochure for students; one 8½" x 11" transparency and one chart of same. $8.00.

Mini-unit

Mini-unit on advantages and drawbacks of no-fault car insurance. Guide to teaching consists of only two pages. Brochure is informative. It opts for no-fault. The one transparency is useful, but essentially the unit consists of only the reading assignment.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

b) Student Materials

**1a. CONSUMER FACT SHEET ON NO FAULT AUTOMOBILE INSURANCE, 1976. Grades 7-adult. 3 pages. Free.

Flyer

Questions and answers about no-fault insurance.

Office of Consumer Affairs
TES-40
U.S. Department of Transportation
Washington, D.C. 20590

**2. A FAMILY GUIDE TO PROPERTY AND LIABILITY INSURANCE, 1973. Grades 11-adult. 24 pages (section on cars, 12 pages). Free.

Pamphlet

Suggestions for insuring possessions, with two sections on insuring automobiles.

Insurance Information Institute
110 William Street
New York, New York 10038

3. EVERY TEN MINUTES, 1972. Grades 11-adult. 5 pages. 6¢.

Pamphlet

Information on automobile insurance that can be used by itself or with filmstrip, AUTOMOBILE INSURANCE.

Insurance Information Institute
110 William Street
New York, New York 10038

c) Audiovisual Materials

4. SO YOU WANT WHEELS, 1972. Grades 10-12. 30-page teacher's guide; two filmstrips with two records (one with bleeps, one without); bibliography page; eight linemasters. $89.00 ($43.50 with cassette).

Mini-unit

Useful mini-unit on purchasing, insuring, and maintaining a car that employs case study approach. Usefulness is weakened by some superficiality of treatment of topics and by closed-endedness of several of the case studies presented in the sound filmstrip. Topics include buying a car, shopping for a car loan, learning about insurance, buying tires, and repairing a car. For each of these topics there is a case study in the sound filmstrip and a section of the teacher guide that includes key concepts, use of linemasters, questions of inquiry (the largest section by far), and student activities. The latter are insufficient and of mixed quality. The eight linemasters are useful, as is a two-page bibliography, for teachers and students, of articles and books.

Kiplinger Washington Editors, Inc.
Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

5. AUTOMOBILE INSURANCE FILMSTRIP, 1972. Grades 10-adult. 57-frame color filmstrip; 13-minute disc recording; teacher's guide with narration; 6-page leaflet for students. $5.00.

Unit treats bodily injury coverages, property damage coverage, and factors affecting their cost.

Insurance Information Institute
110 William Street
New York, New York 10038

2. AUTOMOBILE MAINTENANCE AND REPAIR

The American public spends $29 billion a year to service and repair more than 110 million vehicles. It has been estimated recently that at least $10 billion of the $29 billion is "wasted on shoddy, unneeded or overpriced repairs."[1] With the steady rise in the cost of living, the American car owner should not have to face these unnecessary financial burdens.

In this case the consumer can best defend himself if he or she has a good understanding of how his car works and what can go wrong with it and knowledge of his state's laws that regulate auto repair.

A course concerned with automobile maintenance and repair would help a car owner to determine when repairs are necessary and select a reliable mechanic or perform routine maintenance himself. The owner would also acquire the ability to use procedures for redress of grievances.

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[1] Margaret Carlson, How to Get Your Car Repaired without Getting Gypped (Harper and Row: New York, 1973), p. vii.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
2. Auto Maintenance and Repair	Students demonstrate knowledge, skills and attitudes about automobile mechanics in order to make responsible decisions about 1. when repairs are necessary (1,3,5,10,13,14,15,16,17,18);* 2. selecting a reliable mechanic (8,10,11);* 3. performing routine maintenance themselves (3,5,9,10,13,14,15,16,17);* 4. budget needs for repairs (2,4,10);* and 5. seeking redress of grievances (4,6,7,10,11).*	1. Students listen to a tape recording (made by the teacher or by the students) of a car making noises and identify the mechanical problems the sounds indicate. (Secondary/adult)	Research
		2. Students pretend they are operating the family car as a taxi for the exclusive use of their family and compute how much they would have to charge per mile to cover all labor and out-of-pocket expenses. (Secondary/adult)	Research
		3. Students form an automobile club and engage in their own repair and maintenance activities for members' cars or those of others. (Secondary/adult) (6)**	Volunteer work
		4. Students obtain and compare new and used car warrantees in terms of their explicit and implicit claims. (Secondary/adult)	Research
		5. Students create descriptions of how a car is malfunctioning--knocks, has trouble starting, etc.--and other students diagnose possible causes of the trouble and suggest repairs the average consumer can make. (Secondary/adult)	Writing
		6. Students role-play scenario in which a car owner feels a repairman is being unfair by charging him for labor to fix a problem he failed to repair correctly the first time the owner brought the car in for servicing. (Secondary/adult)	Role-play

*Numbers refer to sample activities which address this particular objective.

**Number refers to bibliography entry that provided idea for the activity.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
2. Auto Maintenance and Repair (contd.)		7. Students interview or write to appropriate consumer protection agencies to learn what recourse they have when they feel a mechanic has treated them unfairly. (Secondary/adult)	Interview
		8. Students develop a check list of qualities they would like in a mechanic and discuss methods by which they can evaluate whether a mechanic will or is living up to those characteristics. (Secondary/adult)	Volunteer work
		9. Students interview distributive education students or mechanics in order to compile a list of repairs an unskilled car owner could perform relatively easily on his own. (Secondary/adult)	Interview
		10. Whenever a student's car breaks down during the course, the class studies the problem in terms of • deciding whether the owner can make the repair; • if he can, how; • if not, how to select a mechanic; • how to estimate the cost of the repairs; • after the mechanic has repaired the car, evaluating his performance; and • if the performance was inadequate, seeking redress of grievances. (Secondary/adult)	Research

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
2. Auto Maintenance and Repair (contd.)		11. Students discuss automobile maintenance and repair within the context of the entire field of transportation and identify the important interfaces between automobile maintenance and other transportation concerns and topics. (Secondary/adult)	Discussion
		12. Students research their state's laws regulating auto repair and discuss what these laws should be. (Secondary/adult)	Research
		13. Students develop a manual for car owners on preventive maintenance that indicates what everyday maintenance tasks the average citizen can perform that will reduce repair bills and/or prolong the life of the car. (Secondary/adult)	Independent study
		14. Students create a sculpture from car parts, and in the process identify the parts, their functions, and how to repair them. (Secondary/adult)	Art
		15. Students design a jigsaw puzzle picture of a basic car engine, in such a way that reassembling it requires knowledge of the parts. (Secondary/adult)	Games
		16. Students discuss importance of regular car maintenance with a car mechanic invited to class. (Secondary/adult)	Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
2. Auto Maintenance and Repair (contd.)		17. Students interview automobile mechanics on regular maintenance car owners themselves can perform or should have garages perform in order to keep their cars running safely.* (Secondary/adult)	Interview
		18. Students poll each other, their parents, or neighbors about automobile breakdowns they have had, then formulate safety guidelines for breakdown situations.* (Secondary/adult)	Poll

*These activities can be found in the following two transportation consumer education manuals developed by Abt Associates Inc.: GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12; TRANSPORTATION CONSUMER EDUCATION FOR ADULTS: Mini-units and Learning Activities.

BIBLIOGRAPHY

a) Teacher Materials

*6. HIGHWAY SAFETY LITERATURE, approx. 25 pages, 8½" x 11".

Periodical

A semimonthly abstract journal that lists publications available from five different government and private traffic-safety sources. Useful for current bibliography of teacher guides and factual material on a wide range of traffic safety topics.

Office of Administrative Services (N48-50)
National Highway Traffic Safety Administration
400 7th Street, S.W.
Washington, D.C. 20590

*7. DRIVER EDUCATION PUBLICATIONS, 1972. Grades 10-adult. 12 pages. Free.

Bibliography

List of driver publications from textbooks to one-page flyers. Contains several useful listings on auto use, in particular a listing of Miscellaneous Publications.

American Automobile Association
Credit and Order Department
1712 G Street, N.W.
Washington, D.C. 20006

*8. YOUTH ON WHEELS: MOTOR FUN AND SAFETY PROJECTS, 1960. Grades 11-12. 27 pages. $1.50.

Guide

Series of suggested projects relating to gasoline, driving skill, car clubs, and auto mechanics. Projects are interesting, such as driving over obstacle courses, seeing how far a car will travel on a particular amount of gasoline, and forming a car club. Resource lists are provided but are somewhat out of date.

Boys' Clubs of America
771 First Avenue
New York, New York

***9. SWINDLE, 1971. Grades 9-adult. $22.50 (part of The Market Place: A Resource Kit for Teaching Consumer Education (see Miscellaneous Bibliography #1 General Consumer Education Teaching Materials).

Game Game designed to help students experience decision making in shopping and to teach them to recognize and avoid frauds. Participants play roles of car salesmen, auto repairmen, Better Business Bureau representative, manager of a car repair shop, etc. Requires minimum of 15 players. Buyers must buy a used car and have it repaired. Recent evaluation of game in Simulation and Games (Volume IV, Number 4: December, 1973) found it to be good preparation for students as they learn to become wise consumers.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

b) Student Materials

*10. THE HIGH COST OF DRIVING AND WHAT TO DO ABOUT IT, 1971. Grades 11-adult. $8.00.

Mini-unit Mini-unit on auto costs and how to reduce them. Of mixed value. Guide to teaching consists of only two pages. Unit in no way tries to cope with the emotional aspects of car purchasing and use. Calling the unit "inquiry-oriented" is misleading, because only a few such student-oriented activities are provided and the four-page reading assignment is a dispenser of facts. However, this latter brochure is informative. The one transparency on how much it costs to operate a car annually is good.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

11. AUTO MECHANICS, AN INTRODUCTION AND GUIDE, by A. Edward Little, 1974. Grades 7-adult. 115 pages.

Book A basic explanation of how various parts of an automobile function.

Franklin Watts, Inc.
New York, New York

12. YOUR WHEELS - HOW TO KEEP YOUR CAR RUNNING, by Chet Cunningham, 1973. Grades 9-12. 127 pages.

Book How to make your car a better and safer vehicle.

G. P. Putman's Sons
New York, New York

13. ARCO COMPLETE CATALOGUE: BOOKS IN PRINT. Grades 9-adult. 139 pages. Free

Catalogue

List of paperback books produced for the layman on a variety of topics, including transportation, such as automobiles, car repair, karting, and trailers.

Arco Publishing Co., Inc.
219 Park Avenue South
New York, New York 10003

***14. HOW TO GET YOUR CAR REPAIRED WITHOUT GETTING GYPPED, by Margaret Bresnahan Carlson, 1973. Grades 9-adult. 278 pages. $1.50, paperback.

Book

Uncompromising, comprehensive account of repair frauds, how to tell what repairs are really needed, where to get repairs, and redress of grievances. Appendices include sections on estimated costs of operating a car, major recall campaigns, places to complain, and an analysis of all Small Claims Courts in the United States.

Harper and Row
10 East 53rd Street
New York, New York 10022

**15. THE GREAT AMERICAN AUTO REPAIR ROBBERY, by Donald A. Randall and Arthur P. Glickman, 1972. Grades 10-adult. 282 pages. $7.95.

Book

Comprehensive account of dishonest automobile repair practices and how to avoid them. Complete section on what to do if "you're gypped" is noteworthy, including complete addresses of automobile manufacturers, state consumer protection divisions, embassies (for foreign cars), Dealer Association, Ralph Nader, oil companies, insurance companies and commissioners, Federal Trade Commission, voluntary consumer groups, newspaper action lines, and other useful addresses.

Charterhouse Books Inc.
145 East 49th Street
New York, New York 10017

c) Audiovisual Materials

16. SO YOU WANT WHEELS, 1972. Grades 10-12. 30-page teacher's guide; two filmstrips with two records (one with bleeps, one without); bibliography page; eight linemasters. $39.00 ($43.50 with cassette).

Mini-unit

Useful mini-unit on purchasing, insuring, and maintaining a car that employs case study approach. Usefulness is weakened by some superficiality of treatment of topics and by closed-endedness of several of the case studies presented in the sound filmstrip. Topics include buying a car, shopping for a car loan, learning about insurance, buying tires, and repairing a car. For each of these topics there is a case study in the sound filmstrip and a section of the teacher guide that includes key concepts, use of linemasters, questions for inquiry (the largest section by far), and student activities. The latter are insufficient and of mixed quality. The eight linemasters are very useful, as is a two-page bibliography, for teachers and students, of articles and books.

Kiplinger Washington Editors, Inc.
Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

17. TRAFFIC SAFETY EDUCATION FILMS, n.d. Grades K-adult. 2 pages. Free.

Catalogue

Annotated list of films on traffic safety, from freeway driving to alcohol-traffic safety.

Contact nearest American Automobile Association (AAA) office or
AAA Foundation for Traffic Safety
1712 G Street, N.W.
Washington, D.C. 20006

18. GENERAL MOTORS MOTION PICTURES, 1973. Grades 10-adult. 54 pages. Free.

Catalogue

Annotated list of 16-mm sound and color motion pictures on various aspects of automobile use and safety. All films are loaned without charge.

General Motors Corporation
Public Relations Staff -- Film Library
General Motors Building
Detroit, Michigan 48202

19. DRIVER EDUCATION AIDS. Grades 10-adult. Free.

Catalogue

Annotated listing of films and filmstrips on automobile use and safety.

Ford Motor Company
Traffic Safety and Highway Improvement Department
The American Road
Dearborn, Michigan 48121

20. MODERN CONSUMER EDUCATION: MODULE 2: CARS, FURNITURE, AND APPLIANCES, 1974. Grades 9-adult. 182-page instructor's manual; two tape cassettes; 30 copies of 47-page student handbook; two copies each of five different 15-20-page student workbooks. $48.00.

Module

Multimedia unit that treats buying a new car, checking out a used car, the cost of running a car, car insurance, and repairs. (There are also two nonautomobile topics covered, furniture and appliances, but the major focus is on cars.) Instructor's manual explains this module and five others published by Grolier on other consumer topics. Manual provides a short synopsis of each topic covered, brief suggestions for follow-up activities, quizzes, and a bibliography of student readings. One of the student handbooks summarizes the information presented in the five other separate student workbooks. The student workbooks supply useful, complete, and well organized information and then periodically ask students questions (and provide answers) on the facts presented. Tape cassettes revolve around husband and wife deciding how to get their damaged car repaired and son giving father advice on how to buy a car. Information is useful, but context is unrealistic. A major deficiency of the unit is that it fails to provide teachers with detailed follow-up activities and relies too heavily on student readings of purely factual information. Unit also fails to deal with affective issues, like peer group pressure, risk-taking, need for instant or flashy products, and uneasiness examining a car too closely in front of the salesperson and asking him probing questions.

Instructional Systems Division
Grolier Educational Corporation
845 Third Avenue
New York, New York 10022

3. AUTOMOBILE PURCHASE

To the average American consumer, the purchase of an automobile is second only to the purchase of a home in terms of cost and importance. Over the last few decades, the questions and problems associated with this purchase have become more urgent for a larger portion of the population, since the number of registered vehicles now equals the number of licensed drivers. Despite the increased use of this mode, there has been increasing dissatisfaction with quality and safety of the merchandise in particular and buying and selling practices in general. At a time when the cost of living is rising rapidly, the consumer should be able to intelligently compare different types of automobiles (new vs. used, compact vs. full size) and the products of different manufacturers. Furthermore, he or she should be able to complete the purchase transaction confidently (arriving at a price, financing, and insuring) and deal with whatever problems arise. Finally, the energy shortage now requires car purchasers to be sensitive to gas mileage and may increase consumers' desire to purchase smaller or more fuel-conserving cars than they have bought in the past.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
3. Automobile Purchase	Students demonstrate knowledge, skills, and attitudes about automobile purchase in order to make responsible decisions about 1. automobile characteristics needed and required (1-10);* 2. buying a car (1,2,3,4,5,6,7,9,10);* 3. financing a car (4);* and 4. seeking redress of grievances (8).*	The first six activities listed below may be found in one or more of the following three manuals: GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12; Transportation Consumer Education for Adults: Mini-units and Learning Activities.	
		1. Students discuss the safety considerations purchasers of new and used cars should keep in mind when buying an automobile. (Secondary/adult)	Discussion
		2. Students respond to "Dear Abby" letters indicating what automobile characteristics purchasers should consider when deciding what car to buy. (Secondary/adult)	Writing
		3. Students discuss embarrassment at carefully examining an automobile for safety features before purchasing it. (Secondary/adult)	Discussion
		4. Students role-play purchasers buying cars from salespersons. (Secondary/adult)	Role-play
		5. Students analyze automobile advertisements and discuss why safety considerations are not usually included in the sales pitch. (Secondary/adult)	Discussion
		6. Students discuss America's alleged love affair with the automobile and how it may relate to automobile purchase and driving safety. (Secondary/adult)	Discussion

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
3. Automobile Purchase (contd.)		7. Students read and discuss short story, "To Buy a Car," an open-ended account of a youth who wants to buy a car. (Secondary/adult)	Discussion
		8. Students interview other students, faculty, or citizens about their experiences obtaining warranty repairs on new cars. Students discuss results in terms of how much credence should be given to warranties and what redress of grievance actions should be taken. (Secondary/adult)	Interview, Discussion
		9. Students create a collage of various types of cars people can buy. (Elementary)	Art
		10. Students identify and discuss what cars their parents own and discuss the advantages and disadvantages of owning a car and of owning different types of cars. (Elementary)	Discussion

BIBLIOGRAPHY

a) Teacher Materials

**21. TO BUY A CAR, 1969. Grades 10-12. Short story: 15 pages (bound separately); teacher's guide: 10 pages. $1.00.

Guide Short story that forms the core of a unit on how to buy a car. Useful unit that is open ended: the story raises many questions about car purchasing that students can learn the answers to in a variety of ways. The accompanying teacher's guide suggests several follow-up activities, from role-play to class discussions to field trips. There is also a supplemental thirty-minute film, "Challenges of Citizenship: Consumer Decision Making," that can be obtained from the publishers. Unit is oriented to the development of decision-making skills. Can be used by adults.

Lincoln Filene Center
Tufts University
Medford, Mass. 02155

***22. SWINDLE, 1971. Grades 9-adult. $22.50 (Part of The Market Place: A Resource Kit for Teaching Consumer Education (see under Miscellaneous Bibliography #1 General Consumer Education Teaching Materials).

Game Game designed to help students experience decision making in shopping and to teach them to recognize and avoid frauds. Participants play roles of car salesmen, auto repairmen, Better Business Bureau representative, manager of a car repair shop, etc. Requires minimum of 15 players. Buyers must buy a used car and have it repaired. Recent evaluation of game in Simulation and Games (Volume IV, Number 4: December, 1973) found it to be good preparation for students as they learn to become wise consumers.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

23. TEACHING TOOLS FOR CONSUMER EDUCATION, monthly. Grades 7-adult. Number of pages vary, usually around 20. Free to classroom teachers who subscribe to Consumer Union's Education-Order Plan ($11.50 yearly).

Guide Each issue includes discussion items, classroom activities, and resources on various consumer topics, many of which cover transportation issues. Most of the suggested discussion items and classroom activities are not detailed and only some are creative. Considerable worthwhile factual information for the teacher is provided.

Educational Services Division
Consumers Union
256 Washington Street
Mount Vernon, New York 10550

**24. CAR BUYING MADE EASIER, 1974. Grades 11-adult. 160 pages (45 devoted to car buying). Free.

Pamphlet Pamphlet produced by Ford Motor Company, providing tips for buying a car; second section describes Ford automobiles. Car buying tips are useful and extensive and do not seem to be watered down for the sake of sales.

Ford Motor Company Listens
P.O. Box 1974
The American Road
Dearborn, Michigan 48121

*25. USED CAR DEALERS -- SEE HOW THEY OPERATE. Grades 11-adult. 2-page teacher's guide; 40 4-page brochures for students; 8½" x 11" transparency; 8½" x 11" chart of same. $10.00.

Mini-unit Mini-unit on how to buy used cars. Of mixed value. Guide to teaching consists of only two pages. Unit in no way tries to cope with the emotional aspects of car purchasing. Calling the unit "inquiry-oriented" is misleading, because only a couple such student-oriented activities are provided and the reading assignment is a dispenser of facts. However, this latter brochure is very informative and fully describes the dishonesty and questionable practices of some second-hand-car salesmen. The one transparency of what to look for when buying a used car is useful, but essentially the unit consists of only the reading assignment.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C.

*26. HOW TO PAY LESS FOR AN AUTO LOAN, 1972. Grades 11-adult. 2 page teacher's guide; 40 4-page student brochures; 8½" x 11" transparency; 8½" x 11" chart of same. $8.00.

Mini-unit Mini-unit on securing the least costly car loan. Of mixed value. Guide to teaching consists of only two pages. Calling the unit "inquiry-oriented" is misleading, because only a couple such student-oriented activities are provided and the reading assignment is a dispenser of facts. However, this latter brochure is very informative and honest. The one transparency on what interest a borrower will pay on a loan is useful, but essentially the unit consists of only the reading assignment.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

27. THE ART OF BUYING A CAR, 1971. Grades 11-adult. 2-page teacher's guide; 40 4-page student brochures; 8½" x 11" transparency; 8½" x 11" chart of same. $8.00.

Mini-unit Mini-unit on general aspects of car buying. Of mixed value. Guide to teaching consists of only two pages. Unit only peripherally tries to cope with the emotional aspects of car purchasing. Calling the unit "inquiry-oriented" is misleading, because only a few such student-oriented activities are provided and the reading assignment is a dispenser of facts. This latter brochure is informative but incomplete. The one transparency on typical advertising baits for car buyers is useful.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

***28. HOW TO BUY A CAR, n.d. Grades 10-adult. 24 pages. 25¢.

Pamphlet Highly practical checklist of on-the-lot, driving, and mechanical shop tests that a potential used car purchaser should complete before buying a used car. Well illustrated with photographs.

Consumers Union
Education Services Division
256 Washington Street
Mount Vernon, New York 10550

*29. HOW TO BUY A USED CAR, 1967. Grades 10-adult. 90 pages. $2.75.

Book Informal book by a used car salesman that covers advertising, "the best car for you," used car conditions, guarantees, negotiating, and used car financing. Book is straightforward on potential dishonesty of used car advertising, sales, guarantees, and financing, but book is a little weak on the details of what to look for in the way of defective used cars.

Chilton Book Company
Chilton Way
Radner, Pennsylvania 19089

**30. WHAT YOU SHOULD KNOW BEFORE YOU BUY A CAR, by Anthony Till, 1968. Grades 11-adult. 156 pages. 75¢.

Book Paperback providing interesting and extensive information on how to buy a new or used car. Topics include advertisements, selection of car, used car deals, financing, and guarantees. Book is weak on discussing what defects to look for in selecting a used car. Author manages a new car dealership.

Award Books
Universal Publishing and Distributing Corporation
235 East Forty-fifth Street
New York, New York 10017

c) Audiovisual Materials

31. TOMMY'S FIRST CAR. Grades 9-12. 11 minutes; color; 16 mm. $145 (purchase), $15 (rental).

Film Film in which a father helps his son buy a second-hand car. Potentially useful for debate on what is wrong with the way people buy cars, but movie is unrealistic in expecting car dealers to allow car to be taken to a mechanic. Film is oversimplified and has some embarrassing features--it illustrates the wrong test for tire alignment, no seat belt is used, and the car takes a U turn in the middle of an intersection. Teacher would have to be already familiar with how to buy a second-hand car if the movie is to be useful.

Film Fair Communications
10900 Ventura Boulevard
Studio City, California 91604

32. SO YOU WANT WHEELS, 1972. Grades 10-12. 30-page teacher's guide; two filmstrips with two records (one with bleeps, one without); bibliography page; eight linemasters. $39 ($43.50 with cassette).

Mini-unit Useful mini-unit on purchasing, insuring, and maintaining a car that employs case study approach. Utility is weakened by some superficiality of treatment of topics and by corniness and closed-endedness of several of the case studies presented in the sound filmstrip. Topics include buying a car, shopping for a car loan, learning about insurance, buying tires, and repairing a car. For each of these topics there is a case study in the sound filmstrip and a section of the teacher guide that includes key concepts, use of linemasters, questions for inquiry (the largest section by far), and student activities. The latter are insufficient and of mixed quality. The eight linemasters are very useful, as is a two-page bibliography for teachers and students of articles and books for further reading.

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

33. MODERN CONSUMER EDUCATION: MODULE 2: CARS, FURNITURE, AND APPLIANCES, 1974. Grades 9-adult. 182-page instructor's manual; two tape cassettes; 30 copies of 47-page student handbook; two copies each of five different 15-20-page student workbooks. $48.00.

Module Multi-media unit that treats buying a new car, checking out a used car, the cost of running a car, car insurance and repairs. (There are also two nonautomobile topics covered, furniture and appliances, but the major focus is on cars.) Instructor's manual explains this module and five others published by Grolier on other consumer topics. Manual provides a short synopsis of each topic covered, brief suggestions for follow-up activities, quizzes, and a bibliography of student readings. One of the student handbooks summarizes the information presented in the five other separate student workbooks. The student workbooks supply useful, complete, and well organized information and then periodically ask students questions (and provide answers) on the facts presented. Tape cassettes revolve around a husband and wife deciding how to get their damaged car repaired and son giving father advice on how to buy a car. Information is useful, but context is unrealistic. A major deficiency of the unit is that it fails to provide teachers with detailed follow-up activities and relies too heavily on student readings of purely factual information. Unit also fails to deal with affective issues, like peer group pressure, risk taking, need for instant or flashy products, and uneasiness examining a car too closely in front of the salesperson and asking him probing questions.

Instructional Systems Division
Grolier Educational Corporation
845 Third Avenue
New York, New York 10022

4. AUTOMOBILE SAFETY

In 1974 alone there were 20,600,000 automobile accidents and 39,810 traffic fatalities. Many people ask, "How can this yearly carnage continue?" Although the Department of Transportation has made progress toward the goal of a one-third reduction in the highway fatality rate by 1980, they have identified five factors that continue to compound the hazards. These are: increase in highway travel (5 percent a year); increase in per capita consumption of alcohol; increase in drivers under 25 (they represent 22 percent of the driving population but are responsible for 35 percent of traffic fatalities); and an increase in the diversity of vehicle sizes and weights.

In any accident situation there are three groups of factors that play a part: (1) human factors, (2) agent factors, and (3) environmental factors. In a car accident these become (1) the driver, (2) the car, and (3) the roadway and its surroundings, including weather, composition of road, other cars, and telephone poles.

The Department of Transportation has developed a strategy for safety that responds to these factors. Safety improvements such as safety belts, energy-absorbing steering columns, and other protective devices will continue to be emphasized. It is believed that some 1000 lives are saved each year by each additional model year of safety-fitted cars. Another aspect of the strategy is to offer better options to automobile use. Changes in funding for transportation and other national policies are aimed toward providing a more balanced system. A third element in the strategy is to involve the community leaders and drivers in safety enforcement and education. A course oriented toward the transportation consumer can play an important part in this effort by giving the consumer the skills to drive safely; evaluate safety devices and vehicle design; and advocate improved traffic safety signs, regulations, and environmental conditions.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
4. Automobile Safety	Students demonstrate knowledge, skills, and attitudes about automobile safety in order to make responsible decisions about 1. driving safely (1,2,3,6,7);* 2. wearing safety belts (4,5,8,9);* 3. drinking and driving (10,11,12);* and 4. advocating improved traffic safety signs and regulations (13,14,15,16).*	The following activities may be found in one or more of these five manuals: TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades K-3; TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades 4-6; Transportation Consumer Education for Adults: Mini-units and Learning Activities; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12.	
		1. Students discuss common driving practices that make driving dangerous and develop collages illustrating these habits. (Elementary)	Discussion
		2. Students role-play drivers and passengers in situations that involve safe (or unsafe) driving habits. (Elementary)	Role-play
		3. Students decorate tags with automobile safety reminders. (Elementary)	Art
		4. Students discuss safety belts and play a board game reinforcing their use. (Elementary)	
		5. Students answer "Dear Abby" letters from classmates on safety belt problems and implement a plan to persuade a friend or relative to use safety belts. (Elementary)	Writing
		6. Students perform science experiments which illustrate automobile driving safety considerations and issues. (Secondary/adult)	Experiments

* Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
4. Automobile Safety (contd.)		7. Students discuss some of the reasons people give for driving dangerously and identify methods by which drivers can be encouraged to adopt safe driving habits. (Secondary/adult)	Discussion
		8. Students poll other students in the class about why they do or do not wear safety belts. (Secondary/adult)	Poll
		9. Class discusses how useful safety belts are in reducing injuries and fatalities in automobile accidents. (Secondary/adult)	Discussion
		10. Students learn the facts about drinking and driving and discuss them. (Secondary/adult)	Discussion
		11. Students discuss best course(s) of action if a friend or relative is about to ride with a driver who has been drinking excessively. (Secondary/adult)	Discussion
		12. Students role-play situations in which a friend who has been drinking excessively is about to drive. (Secondary/adult)	Role-play
		13. Class discusses the merits of different types of personal, social, and political actions citizens and citizen groups can take to promote automobile safety. (Secondary/adult)	Discussion
		14. Students research and evaluate the automobile inspection laws and driver licensing tests in their state. (Secondary/adult)	Research

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
4. Automobile Safety (contd.)		15. Students research the government's role in promoting driver safety and discuss the extent to which safe driving behavior can be legislated. (Secondary/adult)	Research
		16. Students participate in a hearing on highway construction or other issues related to transportation safety. (Secondary/adult)	Field Trip

BIBLIOGRAPHY

a) Teacher Materials

***34. AUTOMOBILE SAFETY BELT ACTIVITIES BOOK, 1973. Grades 4-7, 13 pages. 25¢.

Guide Fun and detailed suggestions for classroom activities on seat belt use, such as crossword puzzles, poems, short story writing, and surveys.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

**35. PHYSICS AND AUTOMOBILE SAFETY BELTS, 1972. Grades 12-adult. 109 pages. $1.50.

Textbook Guide that presents mathematics and physics problems about safety belt use. Unusual guide in that it attempts to teach about a social issue through the use of math and physics. Booklet is intended to serve as a supplement to a standard physics course. Material is divided into sections according to major physical concepts--velocity, acceleration, momentum, etc.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*36. SAFETY BELT INSTRUCTIONAL PACKAGE FOR DRIVER EDUCATION, 1972. Grades 6-adult. Four pamphlets, 8, 13, 35 and 25 pages. Free, 15¢, 20¢, 25¢.

Guide Four factual presentations about seat belt use and teaching about their use. Designed for use in driver education classes, but could be used in other settings. Useful factual information for teachers and students, but classroom approach is not exciting. Pamphlets are (1) overview on teaching about safety belt use (SAFETY BELTS: A RECOMMENDATION TO DRIVER EDUCATORS); (2) an INSTRUCTOR GUIDE with suggested classroom activities in very brief form, objectives and a film list; (3) an AUTOMOBILE SAFETY BELT FACT BOOK that treats important issues such as motivating factors in safety-belt usage and selling the safety belt habit; also contains good bibliography; and (4) a SAFETY BELT INSTRUCTION BOOKLET that is a brief and unimaginative programmed-instruction text.

Department of Transportation
National Highway Traffic Safety Administration
400 7th Street, S.W.
Washington, D.C. 20590

*37. TEACHING CHILDREN ABOUT SAFETY BELTS, 1973. Grades K-4. 32 pages. 40¢.

Guide

Manual of K-4 level activities designed to encourage students to use and to get their parents to use seat belts. Useful for elementary teachers. Has some creative activities. Provided with the booklet is a simple board game called SAFETY BELT GAME that is fun but may not motivate students to use seat belts.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*38. SUGGESTIONS FOR INCREASING THE USE OF VEHICLE RESTRAINT SYSTEMS, 1972. Adults. 38 pages. 45¢.

Bibliography

Descriptions of various educational program kits that can be obtained on safety belt use. Useful for learning about more comprehensive educational programs on safety belt use for adults, chiefly employees in educational programs run by safety directors.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

**39. ALCOHOL USE AND TRAFFIC SAFETY, 1974. Grades K-12. Four volumes, K-3, 4-6, 7-9, 10-12, approx. 200 pages each.

Guide

Alcohol-traffic safety curriculum K-12 that is much broader and more humanistically oriented than the title would indicate. Has many useful sections that are specifically on transportation consumerism, principally selection of modes by cost, safety, and effectiveness. Activities are creative, including role-plays and student-oriented discussions. Curriculum is built around 68 behavioral objectives, with supporting classroom activity suggestions, assignment tasks, and content. Curriculum is oriented around users' needs and feelings.

Maryland State Department of Education
P.O. Box 8717
Friendship International Airport
Baltimore, Maryland 21240

*40. YOUTH ON WHEELS: MOTOR FUN AND SAFETY PROJECTS, 1960. Grades 11-12. 27 pages. $1.50.

Guide

Series of suggested projects relating to gasoline, driving skill, car clubs, and auto mechanics. Projects are interesting, such as driving over obstacle courses, seeing how far a car will travel on a particular amount of gasoline, and forming a car club. Resource lists are provided but are somewhat out of date.

Boys Clubs of America
771 First Avenue
New York, New York

41. SELECTED YOUTH SAFETY RESOURCES, 1968. Grades 7-12. 34 pages. Free.

Catalogue

Annotated but not evaluated list of written and audiovisual materials on a variety of safety topics, including automobile safety.

National Safety Council
436 North Michigan Avenue
Chicago, Illinois 60611

42. NATIONAL SAFETY COUNCIL CATALOGUE, Grades K-adult. Free.

Catalogue

Comprehensive catalogue on all aspects of safety, including driver education and traffic safety. Included are listings of booklets, manuals, films, filmstrips, and posters.

National Safety Council
425 N. Michigan Avenue
Chicago, Illinois 60611

***43. SAFETY INSTRUCTIONAL SYSTEM, n.d. Grades K-6. 285 pages. $2.00.

Guide

Excellent guide that covers pedestrian, school bus, bicycle, auto passenger, and school environment pedestrian safety. Activities are plentiful, creative, and detailed. Bibliography is complete. Well illustrated. Guide does fail to discuss or include activities on affective safety issues such as peer pressure, rebellion, search for "kicks," and "it-won't-happen-to-me" thinking.

Maryland State Department of Education
P.O. Box 8717
Friendship International Airport
Baltimore, Maryland

b) Student Materials

44. YOU AND YOUR CAR, 1954. Grades 10-adult. 15 pages. 25¢.

Pamphlet Useful as a very quick overview of car safety, including discussion of safety belts, rules of the road, highway signs, car safety check points, night driving, and tire care. Some students may find the heavy cartoon format condescending or childish. Part of a series of ten pamphlets on highway traffic safety.

Channing L. Bete Company, Inc.
45 Federal Street
Greenfield, Massachusetts 01301

45. YOUR NEXT ACCIDENT AND HOW TO AVOID IT, 1959. Grades 10-adult. 15 pages. 25¢.

Pamphlet Useful as a very quick overview of car safety, including such topics as courteous driving, defensive driving, and car safety. Some students may find the heavy cartoon format condescending or childish. Part of a series of ten pamphlets on highway traffic safety.

Channing L. Bete Company, Inc.
45 Federal Street
Greenfield, Massachusetts 01301

*46. WHAT EVERY WOMAN SHOULD KNOW ABOUT CARS, 1969. Grade 10-adult. 15 pages. 25¢.

Pamphlet Moralistically phrased suggestions are offered to women drivers on their allegedly special needs and problems, such as driving with children, use of the glove compartment, emergency situations, accidents, and driving alone at night. Some of the suggestions are of the male chauvinist variety, but pamphlet can be used as a stimulus to discussion on whether women have special driving needs and problems. Some students may find the heavy cartoon format condescending or childish. Part of a series of ten pamphlets on highway traffic safety.

Channing L. Bete Company, Inc.
45 Federal Street
Greenfield, Massachusetts 01301

*47. KNOW YOUR ROADS, 1972. Grades 10-adult. 15 pages. 25¢.

Pamphlet Cartoon pamphlet on driving safety. Useful as overview for high school students and naive adults as an introduction to a study of safe driving. Students may find cartoon format and injunctive approach condescending or childish. Part of a series of ten pamphlets on highway traffic safety.

Channing L. Bete Company, Inc.
45 Federal Street
Greenfield, Massachusetts 01301

48. THE NEW LOOK IN TRAFFIC SIGNS AND MARKING, 1972. Grades 4-adult. 19 pages. 35¢.

Pamphlet Sprightly, multicolored pamphlet describing motor vehicle, pedestrian, bicyclist, etc. signs, signals, and pavement markings. Profusely illustrated.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 5001-0027

49. WHAT TO BUY IN CHILD RESTRAINT SYSTEMS, 1971. Grades 9-adult. 11 pages. 20¢.

Pamphlet Discussion, with illustrations and charts, of how to determine what type of children's restraint device to buy in terms of maximum safety. Discussion of child restraint harnesses included.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

50. TRANSPO TOPICS FOR CONSUMERS, n.d. Adults. 8 pages. Free.

Periodical Very useful newsletter on a variety of transportation developments, all of which affect the public as users of transportation facilities. Discusses such topics as legislation, local transportation programs, new publications, and teaching materials.

Department of Transportation
Office of the Secretary
Office of Consumer Affairs
400 Seventh Street, S.W.
Washington, D.C. 20590

51. HOLD EVERYTHING! WHY YOU SHOULD USE SAFETY BELTS, 1962.
Grades 9-adult. 15 pages. 25¢.

Pamphlet Brief, factual discussion of utility of seat belts. Some students may find the heavy cartoon format and injunctive approach condescending or childish. Part of a series of ten pamphlets on highway traffic safety.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, Massachusetts 01301

*52. SAFETY BELT INSTRUCTIONAL PACKAGE FOR DRIVER EDUCATION, 1972.
Grades 6-adult. 8, 13, 35 and 25 pages. Free, 15¢, 20¢, 25¢.

Pamphlet Four pamphlets of facts about seat belts and on teaching about their use. Designed for use in driver education classes but can be used in other settings. Useful factual information for teachers and students, but classroom approach is not exciting. Pamphlets are: (1) overview on teaching about safety belt use (SAFETY BELTS: A RECOMMENDATION TO DRIVER EDUCATORS); (2) an INSTRUCTOR GUIDE with suggested classroom activities in very brief form, objectives, and a film list; (3) an AUTOMOBILE SAFETY BELT FACT BOOK that treats important issues such as motivating factors in safety belt usage and selling the safety-belt habit; also contains a good bibliography; and (4) a SAFETY BELT INSTRUCTIONAL BOOKLET that is a bland programmed-instructional text, very brief and not very imaginative.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Nos. 5003-0068, 5003-0080, and 5003-00077.

53. THERE ARE LOTS OF SAFETY BELT MYTHS...WHY NOT CONSIDER THE TRUTHS? 1972. Grades 10-adult. 6 pages. 10¢.

Flyer Quick overview of safety belt myths.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock No. 488/367/2058F

c) Audiovisual Materials

54. ABOUT DRIVING SAFELY, 1966. Grades 10-adult. 15-page booklet, 15 transparencies. $1.00 (booklet), $50.00 [transparencies (purchase)].

Mini-unit

Unit on safe driving. Useful only as an overview of the various aspects of safe driving, from drinking to passing on a curve. Transparencies and study unit are coordinated, but either can be used without the other. Topics include rules of the road, physical fitness, mental attitude, car construction, and road conditions. This type of broad-brush approach is not likely to be useful in school settings where these issues are studied in greater detail. However, unit can be used in conjunction with ten other Channing L. Bete Co. traffic safety pamphlets to provide more in-depth treatment than this unit alone provides. Some students may find the heavy cartoon format condescending or childish. Approach is also moralistic and injunctive.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, Mass. 01301

55. NATIONAL DIRECTORY OF SAFETY FILMS. Grades 6-adult. $3.59.

Catalogue

Capsule descriptions of safety films that can be rented from the National Safety Council; however, none are evaluated and many included are poor or mediocre. The reader must take "pot luck" and preview all films ordered before using with students.

National Safety Council
425 N. Michigan Avenue
Chicago, Illinois 60611

56. TRAFFIC SAFETY EDUCATION FILMS, n.d. K-adult. 2 pages. Free.

Catalogue

Annotated list of films on traffic safety, from freeway driving to alcohol-traffic safety.

Contact nearest American Automobile Association (AAA) office
or
AAA Foundation for Traffic Safety
1712 G Street, N.W.
Washington, D.C. 20006

57. GENERAL MOTORS MOTION PICTURES, 1973. Grades 10-adult. 54 pages. Free.

Catalogue

Annotated list of 16-mm sound and color motion pictures on various aspects of automobile use and safety. All films are loaned without charge.

General Motors Corporation
Public Relations Staff--Film Library
General Motors Building
Detroit, Michigan 48202

58. DRIVER EDUCATION AIDS. Grades 10-adult. Free.

Catalogue

Annotated listing of films and filmstrips on automobile use and safety.

Ford Motor Company
Traffic Safety and Highway Improvement Department
The American Road
Dearborn, Michigan 48121

59. FILMS AVAILABLE FROM THE AMERICAN MUTUAL INSURANCE ALLIANCE AND ITS MEMBER COMPANIES, n.d. Grades 10-adult. 10 pages (4 pages on transportation safety). Free.

Catalogue

List of films on various aspects of automobile safety including skids, roadside boobytraps, and small car crashes. Descriptions of films are provided along with information on where they can be obtained. Rentals are free.

American Mutual Insurance Alliance
Communications Department
20 North Wacker Drive
Chicago, Illinois 60606

60. A MINI-CATALOG OF OUTSTANDING FILMS FOR DRIVER EDUCATION AND TRAFFIC SAFETY, n.d. Grades 10-adult. 6 pages. Free.

Catalogue

List of 22 movies for rent or sale with brief description of each. Topics range from night-driving tactics to whiplash.

AIMS Instructional Media Services, Inc.
P.O. Box 1010
Hollywood, California 90028

61. INSTRUCTOR GUIDE, 1972. Grades 6-adult. 2 pages. 15¢.

Bibliography

Instructor guide on safety belt use that has two pages describing 14 relevant films. Annotated with sources for rental or purchase and length provided.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock No. 5003-00080

62. FACT AND FICTION ABOUT SAFETY BELTS, 1973. Grades 10-adult. Color filmstrip; tape; script booklet. $10 (purchase).

Filmstrip

Short filmstrip presentation designed to increase safety belt use by destroying seat belt myths.

General Services Administration
National Archives and Records Service
National Audiovisual Center
Washington, D.C. 20409

63. TEACHING CHILDREN ABOUT SAFETY BELTS, 1973. Grades K-6. 1 page. 40¢.

Bibliography

Curriculum guide on safety belt education for K-3 with one page describing three relevant films for children.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

5. BICYCLES

Until recently, issues relating to the use of bicycles were considered important for grades K-7 only. However, the use of bicycles by people of all ages has increased tremendously in the United States. Bicycle sales increased from 7.5 million in 1968 to 14.1 million in 1974. At present there are over 100 million bicycles in use; more bicycles were purchased in 1974 than automobiles. It is expected that half the nation's population will be bicycle riders by 1980.[1] The increase in bicycle sales recorded over the last few years has been accompanied by rising public interest in cycling manifested in clubs and better biking facilities. Not only has the bicycle become more popular as a means of recreation, it has also been given more serious consideration as a viable form of urban transportation. Finally, as bicycles have increased in demand and sophistication, bicycle thefts have become a major consumer problem.

The greater number of bicycles on the road has increased the need to educate people about bicycle safety. Recently, the Consumer Product Safety Commission singled out bicycles as the most hazardous product on the American market.[2] This designation reflects not only the risk of injury but also who might be injured and how badly. The Commission estimated that bicycles and the equipment associated with them are responsible for 460,000 injuries requiring emergency room treatment each year, the majority of which involve children.

Bicycle safety education is important not only for its own sake, but also as a means of inculcating basic transportation safety principles at an early age in a relevant way. By the time children become teenagers, many of their attitudes toward safety have become ingrained and future education and experiences can do little to alter them. Most of the safety principles learned in connection with the bicycle can be transferred to use of other modes, particularly walking, motorcycling, and automobile driving.

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[1] Barbara Murphy and Richard C. Podoski, "Investing in Pedal Power: Atlanta and the Nation," paper submitted for AIP Conference, 1973.

[2] Consumer Product Safety Commission, *Product Hazard Index*, 1976.

Since there are now numerous types of bicycles available at a wide range of prices, financial considerations are increasingly important. As equipment becomes more complex and expensive, maintenance and quality of repair work become important issues for the consumer of any age.

Education can clearly assist the nation's bicycle purchasers and users by supplying information and developing skills and attitudes that will enable consumers to make responsible decisions about the bicycle characteristics that they need and want and about purchasing and maintaining a bicycle, riding safely, advocating and planning bicycle facilities, and seeking redress of grievances.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
5. Bicycles	Students demonstrate knowledge, skills, and attitudes about bicycles as a means of transportation and recreation in order to make responsible decisions about 1. purchasing a bicycle (4,5,10,11,16,17,23);* 2. maintaining a bicycle (2,5,18,19);* 3. riding safely (1,3,6-10,13,14,15,24, 25,29,30);* 4. advocating and planning community bicycle organization and facilities (12,21,22,28);* and 5. seeking redress of grievances (20,26,27).*	The following activities may be found in one or more of these five transportation consumer education manuals: TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades K-3; TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades 4-6; PEDAL ON! Mini-units and Learning Activities on Bicycles for Grades 6-9; PEDAL ON! Mini-units and Learning Activities on Bicycles for Grades 9-12; Transportation Consumer Education for Adults: Mini-units and Learning Activities.	
		1. Students review the basic concept of a bicycle as a vehicle and their responsibility as a bicycle rider. (Elementary)	Discussion
		2. Students play a game similar to Bingo that requires them to identify the parts of a bicycle. (Elementary)	Game
		3. Students create their own imaginary culture or country with its own distinctive attitudes toward use of and laws regulating bicycles. (Elementary)	Writing
		4. Students role-play scenes in which children try to persuade their parents to buy them a bicycle. (Elementary)	Role-play
		5. Students learn how to properly purchase and maintain a bicycle and prevent it from being stolen. (Elementary)	Discussion
		6. Students construct murals and posters displaying safe and unsafe bicycle riding habits. (Elementary)	Art

*Numbers refer to sample activities which address this objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
5. Bicycles (contd.)		7. Students learn the meaning of traffic signs by playing two games. (Elementary)	Game
		8. Students take a poll on their experience with bicycles. (Elementary)	Poll
		9. Students engage in bicycle-riding skill development activities that are designed to promote safe riding. (Elementary)	Game
		10. Students discuss the advantages and disadvantages of bicycling. (Elementary)	Discussion
		11. Students learn about purchasing a bicycle and then pretend they are bicycle advertisers and create their own advertisements. (Elementary)	Writing
		12. The class discusses recreational bicycle activities cyclists can organize and engage in. (Elementary/secondary)	Discussion
		13. Students role-play and discuss scenarios in which a person is about to ride unsafely or is being pressured to ride unsafely. (Elementary)	Role-play
		14. Students write descriptions of the dumbest and greatest thing they have ever done on a bicycle. (Secondary)	Writing
		15. Students evaluate how to cope with friends and family members who ride their bicycles dangerously. (Secondary/adult)	Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
5. Bicycles (contd.)		16. Students discuss what bicycle characteristics purchasers should consider when deciding which bike to buy. (Secondary/adult)	Discussion
		17. Students analyze bicycle warranties and sales agreements. (Secondary/adult)	Discussion
		18. Students interview bike riders on common bicycle malfunctions they have and what kind of maintenance they perform on their bikes to prevent breakdowns. (Secondary/adult)	Interview
		19. Students discuss methods for preventing bicycle thefts. (Secondary/adult)	Discussion
		20. Students role-play scenarios in which a consumer complains to a salesperson or mechanic. (Secondary/adult)	Role-play
		21. A class discussion is held on existing and needed bicycle facilities, such as bikeways and parking areas, and how to plan and advocate them. (Secondary/adult)	Discussion
		22. Students obtain a map of their community and plot and publicize usable bicycle trails for recreation and commuter transportation. (Secondary/adult)	Discussion
		23. Students discuss embarrassment at carefully examining a bicycle for defects and characteristics before purchasing it. (Secondary/adult)	Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
5. Bicycles (contd.)		24. Students discuss what restrictions they would set for their children on riding bicycles. (Secondary/adult)	Discussion
		25. Students discuss why those people who ride unsafely continue to do so even when they know it is very dangerous. (Secondary/adult)	Discussion
		26. Students practice writing letters of complaint concerning grievances they have about bicycle purchase or repair. (Secondary)	Writing
		27. Students poll bicyclists on complaints about their bicycles and what, if anything, they did about their grievances. (Secondary/adult)	Poll
		28. Students plan, engage in, and evaluate different recreational bicycle activities. (Secondary/adult)	Research
		29. Students discuss and evaluate bicycle safety rules as they apply both to younger and older age groups, including adult motorists. (Secondary/adult)	Discussion
		30. Students research the history and use of the bicycle in the United States and other countries and study bicycle laws and transportation-related issues. (Secondary/adult)	Research

BIBLIOGRAPHY

a) Teacher Materials

Note: Bicycling! magazine has published a complete, annotated, and invaluable bibliography of all bicycle literature, organizations, and legislation in its July and September 1972 issues. In addition, an annual supplement to that original list is promised each year.

**64. TEACHER'S GUIDE FOR BIKE BASICS, 1972. Grades K-4. 113 pages. $3.00, notebook.

Guide Comprehensive, detailed, and creative guide on bicycle safety geared to second-grade level, but easily adapted to K-4. Although a 72-frame filmstrip is integrated into the activities, the guide provides considerable background information about bikes. Many suggested classroom activities are creative and detailed, including games, puzzzles, songs, physical activities, and art. Activities are grouped by subject area, including art, language, math, music, science, and physical activity, enabling teachers to simultaneously teach subject area skills and bicycle safety. A 64-page student self-instructional booklet is also integrated into the guide. Major deficiency in the guide is that it is geared to presenting facts--a cognitive approach--rather than to modifying attitudes and behavior--an affective approach. Issues like peer group pressure, rebellion, risk taking, "kicks," "it-can't-happen-to-me" thinking, and other affectively based causes for unsafe riding behavior are not treated.

Maryland State Department of Education
P.O. Box 8717
Friendship International Airport
Baltimore, Maryland 21240

**65. HOW DO YOU DRIVE A BIKE?, 1974. Grades K-6. Teacher's Manual and Activity Guide, 136 pages; 12 12" x 16" posters; six overhead transparencies; 30 copies of 36-page student pamphlet; 17-minute tape and 36-frame filmstrip. $59.50.

Module Comprehensive and creative multimedia package that covers what a bike is, traffic signs, signals, traffic laws, and bicycle safety rules. Filmstrip, tape, student booklet, and poster all duplicate the rhyming, somewhat syrupy text and illustrations and may be used to reinforce each other or independently depending on students' reading level and attention span. Unit does not indicate which activities or sections can be taught at which grade level; instead, and more usefully, notations are provided instructing the teacher to discuss the pictures for children who cannot read the text. The classroom activities section is excellent, including crossword puzzles, story completions, word games, coloring pictures, and simple board games. Illustrations include ethnic minority members but tend to be middle class. Two deficiencies of the unit are its moralizing approach (the text and illustrations tend to order students to do and not to do things) and exclusively cognitive approach (unit presents facts, primarily, and does not deal with issues like peer group pressure, rebellion, risk-taking, "kicks," the "it-won't-happen-to-me" philosophy, and other affectively based causes for unsafe bicycle behavior).

Kilby Associates
P.O. Box 1113
Pendleton, Oregon 97801

**66. ALL ABOUT BIKES: A BICYCLE SAFETY PROGRAM, 1972. Grades K-6. 127 pages plus 36 cut-out 3" x 5" cards; 58 visual aids that can be made into transparencies; two student workbooks (basic and advanced) and two teacher workbook editions. $42.00.

Guide Comprehensive elementary curriculum guide on bicycle use and safety. Contents include 58 visual aids wich can be made into transparencies, 36 "case histories" on 3" x 5" squares, four to a page; two student (one basic, one advanced) and two teacher work booklets; and instructional objectives, vocabulary, and learning experiences covering six topic areas, such as laws, use, and accidents. Activity books are useful exercises in identifying objects and hazards in drawings about bicycles; visual aids are useful; case histories are too closed-ended; several of the suggested learning experiences are creative and detailed, and a few, including an "intersection" game, are exciting. Major deficiency of the curriculum is that it is geared to presenting *facts*--a cognitive approach--rather than to modifying attitudes and behavior--an affective approach. Issues like peer group pressure, rebellion, risk taking, "kicks," "it-won't-happen-to-me" thinking, and other affectively based causes for unsafe riding behavior are not treated.

National Safety Council
425 N. Michigan Avenue
Chicago, Illinois 60611

67. NATIONAL SAFETY COUNCIL CATALOGUE, 1977-78. Grades K-adult. 85 pages. Free.

Catalogue Comprehensive catalogue on all aspects of safety, including bicycles. Included are listings of booklets, manuals, films, and filmstrips, and posters.

National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

**68. TRAFFIC AND PEDESTRIAN EDUCATION SYSTEMS, 1973. Grades 4-6. 37-page leader's guide; 23 spirit masters; 15 cassette tapes; 15 filmstrips. $86.00.

Module

Comprehensive multimedia unit covering all aspects of pedestrian safety for youngsters, including crossing streets, selecting safe routes to school, care with railroad tracks, and the meaning of signs. Behavior in cars and bicycle riding are also covered. Unit consists of 15 modules. For each module the following are provided: audiotape geared to filmstrip; "immediate reinforcement activities" consisting of suggested activities such as songs and children's games; discussion topics; one to two activity sheets that are reproduced for students using spirit masters--activities consist of coloring exercises; and supplemental reinforcement activities such as reading poems, making wall murals, creating trains out of cartons, role-plays, and children's games. Activities are creative but not always detailed. Sheet music for nine songs is provided. Tapes have music, singing, and dialogue. General approach is injunctive and cognitive, but many activities present the opportunity for more open-ended and affectively oriented classroom experiences. Filmstrip and spirit masters use ethnic minorities but are very middle class.

Elisar Research Corporation
15 East 48th Street
New York, New York 10017

*69. GUIDE FOR LEADERS: 4-H BICYCLE PROGRAM, 1971. Grades 6-9. 19 pages. Free.

Guide

Detailed suggestions for 4-H leaders, but equally useful for teachers, on how to teach a unit on bicycles. Guide includes list of study topics, suggested "meeting plans" (activities using bicycles, outdoors for the most part); suggested riding activities (e.g., balancing, signaling, entering highway); favorite bike games and races; and a bicycle inspection form and quiz. Guide is primarily designed for use outdoors with each student having his or her own bicycle. Suggested bike games and races are creative and fully described. Activities are generally fairly detailed and useful, but several require teachers who have had a good deal of practical knowledge about bicycles.

U.S. Department of Agriculture
Extension Service
Washington, D.C. 20250

*70. TERRY THE TRICYCLE, n.d. Grades K-1. 7 pages.

Flyer

Story to be read by teacher to children who ride tricycles. Account describes child's near accidents and ends with his making a list of "all the things little children should remember when riding their tricycle." Rather than read the list, teacher can ask students to supply it. See entry 72 below.

American Automobile Association
1712 G Street, N.W.
Washington, D.C. 20006
Stock No. 3208

**71. TEACHER'S GUIDE TO BICYCLE SAFETY ACTIVITIES AND PROJECTS, n.d. Grades K-9. 12 pages.

Pamphlet

Series of creative activities, many spelled out in detail, on bicycle safety. Illustrated.

American Automobile Association
Traffic Engineering and Safety Department
1712 G Street, N.W.
Washington, D.C. 20006
Stock No. 3281

*72. BICYCLE SAFETY PROGRAM AIDS, n.d. Grades 1-adult. Ten pamphlets and three posters.

Packet

Folder of materials on bicycle safety and use, including entries 70 and 71 above. Included also are a pamphlet to parents on buying their children a bicycle, the results of an AAA survey on the nature and causes of bicycle accidents, a bicycle skill tests pamphlet (well illustrated and described), and a bicycle inspection check list.

The American Automobile Association
1712 G Street, N.W.
Washington, D.C. 20006
Stock No. 3289

73. BICYCLING AND BICYCLE TRAILS. A TRAILS AND TRAIL BASED ACTIVITIES BIBLIOGRAPHY, 1971. Grades 6-adult. 31 pages. $3.00.

Bibliography

Bibliography of books and articles on various aspects of bicycling. Index is conveniently arranged by topic, with largest number of entries being history, safety, and trails. Somewhat outdated due to the great number of bicycle publications since 1971.

National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22151

*74. BICYCLE SAFETY TESTS AND PROFICIENCY COURSE, n.d. Grades 7-adult. 23 pages. Free.

Pamphlet Series of detailed proficiency and safety tests riders can practice. A model inspection form for bike maintenance is also provided.

Bicycle Manufacturers Association
1101 15th Street, N.W.
Washington, D.C. 20005

75. BICYCLE SAFETY CURRICULUM GUIDE, n.d. Grades 4-12. 27 pages. Free.

Guide Includes expected outcomes and teacher suggestions for classroom activities on bicycle purchase, traffic rules, safe driving, night driving, and maintenance. Activities are few and not detailed. Bicycle safety checklists and purchase considerations checklist are very useful.

The University of the State of New York
The State Education Department
Division of General Education
Albany, New York 12224

b) Student Materials

76. BICYCLING FOR RECREATION AND COMMUTING, 1972. Grades 11-adult. 26 pages. 45¢.

Pamphlet Simple overview of bicycling safety, trails, and history.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*77. BIKE QUIZ GUIDE; PEDAL PRIMER: BICYCLES, n.d. Grades 10-adult. 7-9 pages each. Free.

Pamphlet Three small introductory brochures on bicycle safety and maintenance.

Bicycle Manufacturers Association
1101 15th Street, N.W.
Washington, D.C. 20005

78. WHAT EVERYONE SHOULD KNOW ABOUT BICYCLES, 1965. Grades 7-adult. 15 pages. 25¢.

Pamphlet Brief overview of bicycle safety. Utility is limited because of moralistic and injunctive approach. Topics include bicycle parts, history, uses, rules of the road, and care. Some students may find cartoon format condescending or childish. Part of a series of ten pamphlets on highway traffic safety.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, Mass.

79. BOOM IN BIKEWAYS, n.d. Grades 9-adult. 6-8 pages. Free.

Periodical Good monthly newsletter on the establishment and use of bikeways and other related bicycle issues. Describes bikeways in planning, construction, and operational stages. Also deals with other bicycle issues, including bicycle legislation, but major thrust is on bikeways. Useful only for reader interested in bikeway expansion and availability.

Bicycle Manufacturers Association
1101 15th Street, N.W.
Washington, D.C. 20005

*80. BICYCLE BLUE BOOK, n.d. Grades 9-adult. 14 pages. Free.

Flyer Brief instructions on how to care for a bicycle, including a checklist of items to periodically examine, clean, or replace. The section on tire care and selection recommends the use of the distributor's tires.

The Goodyear Tire & Rubber Company
Public Relations Department
Akron, Ohio 44316

***81. BICYCLING! Grades K-adult. Periodical. August and September 1972 and July and August 1973.

Periodical Complete bibliographies of all available books, articles, and periodicals on bicycles are contained in these four issues.

Bicycling!
119 Paul Drive, Box 3330
San Rafael, California 94902

**82. THE CLEAR CREEK BIKE BOOK, 1972. Grades 12-adult. 179 pages. $2.95, paperback.

Book

Informative but somewhat meandering description of bicycle history, how to buy, ride, and repair a bicycle, safety issues, and racing and touring. Unusual are the two sections on the history of bicycles and health benefits from bicycling. The section on politics is an especially useful discussion of how to influence the development of bikeways and parking facilities for bikes. Excellent photographs.

The New American Library, Inc.
1301 Avenue of the Americas
New York, New York 10002

**83. BIKE TRIPPING, by Tom Cuthbertson, 1972. Grades 9-adult. 179 pages. $3.00, paperback.

Book

Lively, informative account of how to take bike trips in terms of safety, the weather, where to go, and equipment to carry. Book also discusses learning to ride and purchasing a bike. Illustrated.

Ten Speed Press
Box 4310
Berkeley, California 94704

**84. NORTH AMERICAN BICYCLE ATLAS, 1972. Grades 9-adult. 127 pages. $2.60.

Guide

Extremely useful descriptions of about 80 long rides and 61 short rides cyclists can take throughout the country. Descriptions include scenery, facilities, difficulty, and type of equipment needed. Trips are rated according to difficulty: easy, fairly easy, intermediate, hard, and rugged. Introduction discusses lodging, equipment, safety, and handling dogs.

American Youth Hostels, Inc.
Delaplane, Virginia 22025

**85. BIKES, by Stephen C. Henkel, 1972. Grades 9-adult. 189 pages. $1.25, paperback.

Book

Straightforward and comprehensive account of bike styles, purchasing a bike, learning to ride, maintenance and repair, safety, and "having fun." Profusely and very well illustrated. Sections on do-it-yourself maintenance and repairs are especially good.

Bantam Books, Inc.
666 Fifth Avenue
New York, New York 10019

**86. THE BICYCLE BOOK, Bob Boethling (ed.), 1971. Grades 9-adult. 63 pages. $1.50, paperback.

Booklet Gamey and well formatted advice on a variety of bicycle topics, including buying a bicycle, bikeways, theft, recreational cycling organizations, legal problems, and maintenance. Not well illustrated.

Price/Stern/Sloan Publishers Inc.
410 North Cienega Blvd.
Los Angeles, California 90048

*87. THE BICYCLE BOOK, by Lillian and Godfrey Frankel, 1972. Grades 7-adult. $1.50, paperback.

Book Useful account of how to select, repair, care for, and ride a bicycle. Bike trips, tours, clubs, and camping are also discussed. Section on bicycle games (22 pages) is especially complete and creative. Illustrated.

Cornerstone Library
Simon and Schuster
630 Fifth Avenue
New York, New York 10020

**88. THE BIKE BOOK, by Bibs McIntyre, 1974. 262 pages. Grades 9-adult. $1.25, paperback.

Book Excellent discussion of how to buy, maintain, and safely ride a bicycle. Unusual chapters deal informatively with how to prevent theft, how to work up to a 50-mile trip, and which accessories "you would really use." Exceptionally good resources section including list of local, state, and national bicycle clubs, racing organizations and clubs, and American Youth Hostel local council offices.

Pyramid Communications, Inc.
919 Third Avenue
New York, New York 10022

**89. ANYBODY'S BIKE BOOK, by Tom Cuthbertson, 1971; revised, 1973. Grades 10-adult. 176 pages. $3.00 plus 25¢ postage, paperback.

Book Illustrated, easy to read, well organized manual of bike repairs for the amateur and serious enthusiast.

Ten Speed Press
Box 4310
Berkeley, California 94704

**90. CONSUMER GUIDE: BICYCLES: COMPLETE BUYING GUIDE, 1972. 384 pages. Grades 11-adult. $1.50, paperback.

Book Detailed evaluation of bicycles arranged by age and price based on actual road testing. Book also includes discussion of bicycle safety considerations and how to buy a bike. Interesting sections are provided on the health benefits of bike riding and detailed rules for bicycle polo. List of bicycle clubs by state is included.

Popular Library
355 Lexington Avenue
New York, New York 10017

**91. RICHARD'S BICYCLE BOOK, By Richard Ballantine, 1972. 249 pages. Adult. $1.95, paperback.

Book Profusely and well illustrated account of how to maintain and repair a touring bicycle. Discussions of how to buy and ride a bike are included.

Ballantine Books, Inc.
201 East 50th Street
New York, New York 10022

*92. BIKE-WAYS (101 THINGS TO DO WITH A BIKE), by Lillian and Godfrey Frankel, 1972. Grades 10-adult. 128 pages. $3.50.

Book Informative accounts of how to have fun with a bike, including games, skill exercises, trips, tours, and camping. Included are brief discussions of safety, how to select a bike, parts and accessories, and maintenance. The section of 25 games is especially useful.

Sterling Publishing Company, Inc.
419 Park Avenue South
New York, New York 10016

93. A GREAT BICYCLE BOOK, by Jane Sarnoff and Reynold Ruffins, 1973. Grades 4-9. 31 pages. $5.95

Book Children's book on parts of a bicycle, fitting the bike to the rider, maintenance, and racing games. Illustrated in bright colors, but otherwise book does not contain anything particularly stimulating for children.

Charles Scribner's Sons
497 Fifth Avenue
New York, New York 10017

94. A TALE OF TWO BICYCLES: SAFETY ON YOUR BIKE, by Leonard Kessler, 1971. Grades 1-2. 38 pages. $3.78.

Book Moralistic, unimaginative account of two boys, one of whom rides safely, the other of whom rides dangerously. Uses the "you'll-be-sorry" approach. Large color illustrations.

Lothrop, Lee & Shepard Co.
105 Madison Avenue
New York, New York 10016

95. PARENTS, BUYING YOUR CHILD A BICYCLE, n.d. Adults. 6 pages.

Flyer Very brief instructions to parents on whether to buy their children a bicycle and, if so, what kind of bike to buy.

American Automobile Association
1712 G Street, N.W.
Washington, D.C. 20006

*96. HELPFUL HINTS ON BICYCLE CARE FOR SAFER RIDING, n.d. Grades 10-adult. 4 pages.

Flyer Quick but detailed overview of how to maintain a bicycle. Many of the suggested tasks involve more work than most riders will be willing to engage in.

Bicycle Manufacturers Association
1101 15th Street, N.W.
Washington, D.C. 20005

c) Audiovisual Materials

97. TRAFFIC AND PEDESTRIAN EDUCATION SYSTEMS, 1973. Grades 4-6. 37-page Leader's Guide; 23 spirit masters; 15 cassette tapes; 15 filmstrips. $86.00.

Module Comprehensive multimedia unit covering all aspects of pedestrian safety for youngsters, including crossing streets, selecting safe routes to school, care with railroad tracks, and the meaning of signs. Behavior in cars and bicycle riding are also covered. Unit consists of 15 modules. For each module the following are provided: audiotape geared to filmstrip; "immediate reinforcement activities" consisting of suggested activities such as songs and children's games;

discussion topics; one to two activity sheets that are reproduced for students using spirit masters--activities consist of coloring exercises; and supplemental reinforcement activities such as reading poems, making wall murals, creating trains out of cartons, role-plays, and children's games. Activities are creative but not always detailed. Sheet music for nine songs is provided. Tapes have music, singing, and dialogue. General approach is injunctive and cognitive, but many activities present the opportunity for more open-ended and affectively oriented classroom experiences. Filmstrip and spirit masters use ethnic minorities but are very middle class.

Elisar Research Corporation
15 East 48th Street
New York, New York 10017

98. BIKE BASICS, 1973. Grades 4-6. Filmstrip; 72 frames; color.

Filmstrip

Filmstrip illustrates safety principles; many slides are open-ended, requiring student discussion. Although designed for use with TEACHER'S GUIDE FOR BIKE BASICS (see entry 97 above), filmstrip may be used independently.

Elisar Research Corporation
15 East 48th Street
New York, New York 10017

99. NATIONAL DIRECTORY OF SAFETY FILMS. Grades 6-adult. $3.50.

Catalogue

Capsule descriptions of safety films that can be rented from the National Safety Council; however, none are evaluated and many are included that are either poor or mediocre. The reader must take "pot luck" and preview all films ordered before using with students.

National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

6. DRINKING, DRUGS, AND DRIVING

More people are injured and killed by impaired and intoxicated automobile drivers than by any other single transportation hazard. More than 22,500 traffic fatalities each year, or half of all traffic fatalities, involve problem drinker-drivers. The death toll from impaired and drunk drivers every two years equals the total number of American deaths in the entire Vietnam War. Over seventy people are killed every day in alcohol-related traffic accidents, or nearly three people every hour. Although two-thirds of these fatalities involve problem drinkers and alcoholics, 8000 are caused by social drinkers who, though legally sober, were driving with dulled reflexes. In addition, increasing numbers of drivers are traveling while impaired by other drugs, including barbiturates, amphetamines, marijuana, and heroin.

Clearly, the drunk driving problem critically affects all citizens' freedom to use the transportation system safely as drivers, passengers, and pedestrians.

Education can provide an excellent opportunity to help the transportation consumer to help cope with the drunk-driver problem by dealing with youngsters' attitudes toward alcohol at an early age and by encouraging teenage and adult students to make responsible decisions about such issues as when and how much to drink; driving while impaired; offering drinks to guests who are about to drive; intervening actively to prevent friends or relatives from driving when impaired; and advocating meaningful drunk-driving legislation and enforcement of existing laws. Indeed, in view of the relative failure of using punitive sanctions against adults, education at an early age may be the only way in which society can enable youngsters to develop responsible attitudes toward alcohol and other drugs that will help them later as adults to drink, take medication, and drive safely.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
6. Drinking, Drugs, and Driving	Students demonstrate knowledge, skills, and attitudes about drinking, drugs, and driving in order to make responsible decisions about	1. Students discuss relationships between bicycle riding and automobile driving and relate both to alcohol and drug abuse and safety. (Secondary)	Discussion
		2. Students view and discuss filmstrip A NEW LOOK AT THE OLD SAUCE. (Secondary/adult)	Audio-visual
	1. when not to drive (1-5,12-14,18,29,33, 34,35);*	3. Students discuss situations in which alcohol or drug abuse might hinder quick action. (Secondary/adult)	Discussion
	2. handling interpersonal situations involving drinking, drugs, and driving (7-13,15-16, 21,29,32,35);*	4. Teacher lectures on the role of alcohol in traffic accidents. (Secondary/adult)	Lecture
		5. Students learn the facts about drinking and driving and discuss them.** (Secondary/adult)	Discussion
	3. who is and who should be responsible for alcohol- and drug-traffic safety (6,12,13,19,20,29-31);* and	6. Students discuss drugs and driving within the context of the entire field of transportation and identify the important interfaces between drugs and driving and other transportation concerns and topics. (Secondary/adult)	Discussion
	4. advocating effective alcohol and drug traffic safety legislation (6,12,22-28).*	**This activity may be found in one or more of the following transportation consumer education manuals developed by Abt Associates Inc.: GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12; Transportation Consumer Education for Adults: Mini-units and Learning Activities.	

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
6. Drinking, Drugs, and Driving (contd.)		7. Students discuss best course of action to take if they are about to ride with a driver who has been drinking excessively. (Secondary/adult)	Discussion
		8. Students discuss best course of action to take if a friend or relative is about to ride with a driver who has been drinking excessively.** (Secondary/adult)	Discussion
		9. Students complete unfinished stories by writing in the omitted part and thereby resolving an interpersonal safety dilemma. (Secondary/adult)	Writing
		10. Students discuss what they would do if they, as parents, found their son or daughter riding with a drunk or drugged driver. (Secondary/adult)	Discussion
		11. Students role-play situations in which they, as parents, find their son or daughter driving after drinking excessively or riding with a driver who has been drinking excessively. (Secondary/adult)	Role-play

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**This activity may be found in one or more of the following transportation consumer education manuals developed by Abt Associates Inc.: GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12; Transportation Consumer Education for Adults: Mini-units and Learning Activities.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
6. Drinking, Drugs, and Driving (contd.)		12. Class splits up into small groups to engage in different independent research projects on alcohol, drugs, and safety. (Secondary/adult)	Independent Study
		13. Students create a movie on alcohol and traffic safety. (Secondary/adult)	Audio-visual
		14. Students research the role of alcohol or drugs in automobile and pedestrian accidents. (Secondary/adult)	Research
		15. Students discuss and evaluate alternate courses of action to take if they are riding with a driver who has been drinking excessively. (Secondary/adult)	Discussion
		16. Students role-play passengers in a car driven by a driver who has been drinking excessively or is impaired by drug use. (Secondary/adult)	Role-play
		17. Students role-play situations in which a friend who has been drinking excessively or taken impairing drugs is about to drive.* (Secondary/adult)	Role-play

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*This activity may be found in the following transportation consumer education manuals developed by Abt Associates Inc.: GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
6. Drinking, Drugs, and Driving (contd.)		18. Students compare different audiovisual treatments of alcohol and traffic safety issues. (Secondary/adult)	Audio-visual
		19. Students research and debate whether the automobile industry, the driver, or the state should be responsible for traffic safety.	Research
		20. Students research automobile safety and interview, call, or write safety experts from an automobile company. (Secondary/adult)	Research
		21. Students discuss and evaluate alternate courses of action to take if they are riding with a driver who has been drinking excessively. (Secondary/adult)	Discussion
		22. Students discuss and evaluate the drinking, drug, and driving laws in their state. (Secondary/adult)	Discussion
		23. Students discuss what a driver's blood alcohol concentration should be in order for him to be legally drunk. (Secondary/adult)	Discussion
		24. Students discuss whether the breathalyzer test should be compulsory. (Secondary/adult)	Discussion
		25. Students discuss what actions should be taken with people who commit alcohol-related or drug-related driving offenses. (Secondary/adult)	Discussion
		26. Students evaluate what action to take with a convicted drunk driver. (Secondary/adult)	Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
6. Drinking, Drugs, and Driving (contd.)		27. Students discuss alcohol regulations for pilots and airplane passengers. (Secondary/adult)	Discussion
		28. Students role-play a judge deciding the disposition for a person guilty of a drinking and driving violation. (Secondary/adult)	Role-play
		29. Students design and conduct poll to determine public's attitude toward and knowledge of drinking, drugs, and driving laws. (Secondary/adult)	Poll
		30. Students research and evaluate the alcohol, drug, and driving laws in their state. (Secondary/adult)	Research
		31. Teacher lectures on state's drinking, drug, and driving laws. (Secondary/adult)	Lecture
		32. Students role-play situation in which they are passengers in a car driven by a driver who has been drinking excessively. (Secondary/adult)	Role-play
		33. Students discuss with school nurse the effects of over-the-counter and prescription drugs (e.g., antihistamines, barbiturates, and amphetamines) on driving. (Secondary/adult)	Discussion
		34. Students read different descriptions of the relationship between alcohol use and traffic safety and compare findings. (Secondary/adult)	Reading

BIBLIOGRAPHY

a) Teacher Materials

***100. ALCOHOL AND ALCOHOL SAFETY, 1972. Grades K-12. (K-6: Vol. 1, 276 pages; Vol. 2, 108 activities; 7-9: Vol. 1, 289 pages; Vol. 2, 236 activities; 9-12: Vol. 1, 307 pages; Vol. 2, 243 activities). Price: Elem., $8.75; Jr., $11.75; Sr., $12.50.

Guide Comprehensive curriculum manuals for K-12 on all aspects of alcohol use, with considerable attention paid to drinking and driving. Three sets of manuals, one for elementary, one for junior high, and one for senior high level. Each set has two volumes, one a curriculum manual, the other classroom activities. The activities are detailed and constitute the heart of the curriculum. They are creative and designed to achieve behavioral objectives in this highly affective field. An extensive bibliography on alcohol and traffic safety is provided in each set, including classroom materials and teacher guides. Senior high materials can be used for adult education.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Order No's.:
5003-00094, 5003-00086: Elementary
5003-00085, 5003-00089: Jr. High
5003-00087, 5003-00088: Sr. High

***101. A TEACHER MANUAL FOR USE WITH DIAL A-L-C-O-H-O-L, 1976. Grades 9-12. A TEACHER MANUAL FOR USE WITH JACKSON JUNIOR HIGH, 1976. Grades 6-9. 30 pages each.

Guide A teacher's guide, four films and a student booklet are the materials that comprise this curriculum package. The curriculum is designed to help young people make responsible decisions concerning the use of alcohol. All aspects of alcohol use are treated, including drinking and driving. The films are thought provoking and lend themselves well to the detailed activities contained in the teacher's manuals. The student booklets are informative, objective, and appropriately written for their intended audiences.

Alcohol TV Project
National Audio-Visual Center (GSA)
Washington, D.C. 20409

***102. ALCOHOL - PLEASURES AND PROBLEMS, 1976. Grades 9-12. KIDS AND ALCOHOL, 1976. Grades 6-9. 30 pages each.

Booklet These booklets are a valuable resource providing factual information on alcohol in a readable format.

Alcohol TV Project
National Audio-Visual Center (GSA)
Washington, D.C. 20409

**103. ABC'S OF DRINKING AND DRIVING, 1971. Grades 10-adult. 15 pages. 25¢.

Pamphlet Useful overview of the drinking-driving problem, crammed with facts and statistics and presented graphically and with illustrations. Minor weakness: pamphlet warns of danger of loss of license as a result of DWI conviction and consequent inability to drive. In fact, few drunk drivers are convicted, few of those convicted lose their licenses, and most of those who do continue to drive anyway. In addition, some students may find cartoon format condescending or childish. Approach is not the "if you drink, don't drive" variety; it is the "know your limits" approach now advocated by the Federal and most state governments. Pamphlet is part of a series on highway traffic safety.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, Massachusetts 01301

**104. ALCOHOL AND HIGHWAY SAFETY, 1969. Grades 10-adult. 11 pages. Free.

Articles Compilation of reprints that discuss the difficulty of convicting drunk drivers. Very useful document for discussing the political and legal aspects of the enforcement of traffic safety laws - and, by analogy, of all transportation laws.

Allstate Insurance Company
Allstate Plaza
Northbrook, Illinois 60062

**105. 1968 ALCOHOL AND HIGHWAY SAFETY REPORT, 1968. Adult. 182 pages. 50¢.

Report Report by the Department of Transportation that is basis for much current alcohol-traffic safety legislation. Description of the data that lead DOT to claim that problem drinkers, not social drinkers, are largely responsible for alcohol-related traffic accidents. Also discusses countermeasures, public opinion, and legal aspects. A basic document.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Order No. Y4/PO96/11:90-34

**106. PEOPLE DO DRINK AND DRIVE, 1973. Grades 10-adult. 25 pages. $1.20.

Pamphlet Exposition for secondary school students on facts about alcohol and discussion of drinking/driving situations. Useful booklet that begins with factual information about alcohol and its effects on driving. Booklet ends with nine presentations of problematical situations involving drinking and driving for students to "solve."

American Driver and Traffic Safety Education Association
(ADTSEA)
1201 16th Street, N.W.
Washington, D.C. 20036

c) Audiovisual Materials

***107. DIAL A-L-C-O-H-O-L, 1976. Grades 9-12. Series of four films plus teacher-orientation film; 30 minutes each; color. JACKSON JUNIOR HIGH, 1976. Grades 6-9. Series of four films plus teacher-orientation film; 15 minutes each; color. Free Loan.

Film These two film series are designed to help young people make responsible decisions about the use of alcohol. Included with each series are a teacher guide and student booklet. The senior high series treats drinking and driving.

Alcohol TV Project
National Audiovisual Center (GSA)
Washington, D.C. 20409

108. A SNORT HISTORY. Grades 10-adult. 6 minutes; color.

Film Film, with cartoons and live action, that stresses that driving involves risk-taking decisions and then illustrates how the ability to judge the reality of these risks is affected by alcohol.

Denver Alcohol Safety Action Program
1845 Sherman Street
Denver, Colorado 80203

109. THE DECISION IS YOURS, 1972. Grades 10-12. 92 slides; test; audiotape; curriculum guide. $10 (purchase).

Film-strip

Filmstrip on the hazards of drinking and driving that tries to present the facts and leave the decision of whether to drink and drive up to the viewer. Filmstrip is geared specifically to driver education classes. Slides are of drunk-driving behavior and factual information about alcohol's physical and behavioral effects. Places are provided in the filmstrip for stopping the audio and discussing the ideas presented. However, the presentation does not in fact leave the decision up to the viewer but is loaded to elicit the obvious "don't drink and drive" decision.

National Audiovisual Center
General Services Administration (GSA)
Washington, D.C. 20409

110. LADIES AND GENTLEMEN OF THE JURY. Grades 11-adult. 27½ minutes; color; 16 mm.

Film

Film which shows, through a story, the problem drinker as a highway hazard and the public's failure to recognize the problem.

U.S. Department of Transportation
Office of Alcohol Countermeasures
Nassif Building
7th and D Streets, S.W.
Washington, D.C. 20590

111. DWI -- PHOENIX. Grades 11-adult. 27 minutes; color.

Film

This documentary film shows how one city is finding a way to protect itself against drunk drivers via a compulsory-attendance traffic education course for drivers involved in accidents while intoxicated.

All orders must be placed through the local AAA Club. For the address of the local club, write

AAA Foundation for Traffic Safety
734 Fifteenth Street, N.W.
Washington, D.C. 20005

112. THE BOTTLE AND THE THROTTLE. Grades 10-adult. 10 minutes; black and white.

Film

This film reveals the effects of drinking on driving. Statistics are used as well as a story about an accident involving teenagers.

Sid Davis Productions
1046 South Robertson Boulevard
Los Angeles, California 90035

113. HOW MUCH IS TOO MUCH? Grades 10-adult. 15 minutes; color.

Film This film shows people determining for themselves how much is too much and records their actions at different levels of intoxication.

Wisconsin ASAP
University of Wisconsin
Institute of Governmental Affairs
311 State Street
Madison, Wisconsin 53703

114. POINT ZERO EIGHT. Grades 10-adult. 30 minutes; black and white.

Film Eight of Canada's foremost rally and racing drivers are subjected to exacting tests to determine the degree a given amount of alcohol in the blood can affect their skill and ability to react.

CTV Television Network Ltd.
42 Charles Street
Toronto 5, Canada

115. THE DRINKING DRIVER. Grades 11-adult. 27 minutes; color.

Film This film presents basic elements needed for an effective community countermeasures program.

U.S. Department of Transportation
Office of Alcohol Countermeasures
Nassif Building
7th and D Street, S.W.
Washington, D.C. 20590

116. A NEW LOOK AT THE OLD SAUCE. 35-mm filmstrip. 17 minutes; record; color.

Film Animated cartoon depicting history and effects of alcohol, drinking patterns, alcoholism, and drinking and driving.

Texas Commission on Alcoholism
809 Sam Houston State Office Building
Austin, Texas 78701

7. EMERGENCY VEHICLES

Recent medical studies have shown that the care given to the injured or sick in the minutes immediately following an emergency is crucial to the chances for recovery. A Department of Transportation study states that "23 percent of auto fatalities died of probably survivable injuries due to problems throughout the emergency care system." There has been growing concern in many communities over the wide variations in speed of response and quality of care that is available. In a matter of such serious personal concern, it is important for a potential user of this type of emergency service to be aware of the emergency care system in his community and when and how to use it.

Through a program of education, the transportation consumer can learn to make responsible decisions about the appropriate service to contact in an emergency, how to contact it, methods of assuring adequate community emergency services, and seeking redress of grievances. These skills will not only facilitate the use of the service, but also stimulate its communitywide improvement.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
7. Emergency Vehicles	Students demonstrate knowledge, skills, and attitudes about emergency vehicles in order to make responsible decisions about 1. which service to contact in an emergency (1-5);* 2. how to secure emergency service (1,3,4,);* and 3. assuring adequate emergency services (5-7).*	The following activities may be found in one or more of these five transportation consumer education manuals developed by Abt Associates Inc.: TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades K-3; TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades 4-6; Transportation Consumer Education for Adults: Mini-units and Learning Activities; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12.	
		1. Students discuss the nature of emergency vehicles and learn how to obtain emergency services when needed. (Elementary)	Discussion
		2. Students identify the emergency services available in their community and the reasons for which each is used. (Elementary)	Discussion
		3. Students role-play their reactions to household and community emergencies. (Elementary)	Role-play
		4. Students present skits depicting emergency situations. (Elementary)	Skits
		5. Students evaluate the emergency vehicle needs of their community and develop a plan to provide those vehicles and services that are lacking. (Secondary/adult)	Research
		6. Students determine the time needed for an emergency vehicle to reach a given point in their community. (Secondary/adult)	Research

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
7. Emergency Vehicles (contd.)		7. Students discuss actions citizens can and should take to facilitate the provision of emergency care by operators of emergency vehicles. (Secondary/adult)	Discussion

BIBLIOGRAPHY

a) Teacher Materials

No relevant teacher materials on emergency vehicles were located.

b) Student Materials

The following materials were located too late to be evaluated. However, they are all designated by the Department of Transportation as useful reference materials.

117. HIGHWAY AMBULANCE SERVICE, 1969. 65¢.

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402
Order No. TD2. 202:AM 7

118. ECONOMICS OF HIGHWAY EMERGENCY AMBULANCE SERVICE, 1968. $3.00.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
Order No. PB-11-6541

119. ACCIDENTAL DEATH AND DISABILITY: THE NEGLECTED DISEASE OF MODERN SOCIETY, 1970.

Commission on Emergency Medical Services
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

120. DEVELOPING EMERGENCY MEDICAL SERVICES - GUIDELINES FOR COMMUNITY COUNCILS.

Commission on Emergency Medical Services
American Medical Association
535 Dearborn Street
Chicago, Illinois 60610

121. HELICOPTERS IN EMERGENCY MEDICAL SERVICE: NHTSA EXPERIENCE TO DATE, 1972.

Superintendent of Documents
Government Printing Office
Washington D.C. 20402
Order No. TD 8.2: H:36

122. EMERGENCY CARE MANUAL - A SYSTEMATIC APPROACH, by Burton A. Waisbren, M.D. $7.50

Medical Examination Publishing Co.
Flushing, N.Y. 11365

123. QUESTIONS AND ANSWERS, EMERGENCY MEDICAL SERVICES, 1973. Free.

U.S. Department of Transportation
Rescue and Emergency Medical Services Division
Washington, D.C. 20590

124. TO DIE OR NOT TO DIE - WHAT IS YOUR COMMUNITIES' ANSWER? EMERGENCY MEDICAL SERVICES, 1973. Free.

U.S. Department of Transportation
Rescue and Emergency Medical Services Division
Washington, D.C. 20590

125. A HELICOPTER AMBULANCE SERVICE - DO YOU NEED IT? CAN YOU JUSTIFY IT? CAN YOU AFFORD IT? 1973. Free.

U.S. Department of Transportation
Rescue and Emergency Medical Services Division
Washington, D.C. 20590

126. RESCUE FROM AIR AND IN SPACE, by Captain James C. Sparks, Jr. 155 pages.

Book A history of man's development of rescue operations in both air and space.

Mead Dodd & Co.
79 Madison Avenue
New York, New York 10016

c) Audiovisual Materials

127. ON THE SCENE, n.d. 28 minutes; 16 mm; color. Free (10-day loan); $125.00 (purchase).

Film on police use of helicopters with a five-minute segment on emergency medical services.

Director
Public Relations
Bell Helicopter Co.
P. O. Box 482
Fort Worth, Texas 76101

8. THE ENVIRONMENT AND TRANSPORTATION

Only recently has the public become aware of the vast effects transportation has on the environment. Smog alerts have become a common occurrence in many American cities. Most local and intercity travel, in fact, affects the environment in several important ways, including air, noise, and visual pollution that represent direct threats to the physical and perhaps mental health of the individual. Transportation systems often foster questionable use of the land. Highway construction alone, for example, led to the displacement of approximately 15,000 people and businesses in 1976. Finally, certain transportation vehicles, primarily automobiles, are helping to deplete our energy resources.

Transportation vehicles and facilities also enhance or preserve the environment in numerous ways and make scenic areas more accessible to the public. These beneficial effects must be balanced against the damage transportation causes to the environment.

It must be remembered that the environment, in turn, can interfere with transportation. Natural obstructions to visibility, confusing traffic signs, and poorly designed roads are obstacles that hamper travel safety, comfort, and convenience.

Until recently, these issues relating to transportation and the environment were thought to be the responsibility of only the government and private business. With recent evidence accumulating about transportation's impact on pollution, land use, and energy consumption, the public has increasingly been motivated to take an active role in transportation decisions affecting the environment. However, the necessary knowledge and skills needed to translate this motivation into action have often been lacking. Classroom education can play a significant role in supplying this information and these skills. The information that citizens need to know or be aware of is outlined below:

- There is a complex interrelationship between transportation and the environment.
- Transportation vehicles and facilities have both good and bad effects on the environment.
- Transportation meets many critical needs of contemporary American society, including the provision of job opportunities and the extent

to which highways, roads, airports, and mass transit facilities consume land and displace residents and businesses.

- Some features of the environment can interfere with safe, convenient, and enjoyable travel.

- There are actions that can be taken in people's personal lives to resolve conflicts between transportation and the environment, such as increasing their use of public transportation and carpools.

However, consumer knowledge about transportation effects and of possible citizen actions to reduce them is not enough. The consumer must have the skills to act effectively. Citizens can develop such skills best through actually engaging in activities designed to reduce transportation's effects on the environment.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
8. Environment and Transportation	Students demonstrate knowledge, skills, and attitudes about the environment and transportation in order to make responsible decisions about 1. transportation's beneficial and harmful effects (1-5,7,9,12,13 22,23,25,27,28,32);* 2. personal travel alternatives (6,10,17,18, 21,24);* 3. actions citizens can take to reduce transportation's harmful effects (8,11,17,19, 26,31);* 4. solutions to conflicts between transportation and the environment (14,15,16,20,24,29,30, 32);* and 5. balancing the needs of transportation and the environment (4,9,12, 23,24).*	The following activities may be found in one or more of these five transportation consumer education manuals developed by Abt Associates Inc.: TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades 6-9; TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades 9-12; Transportation and the Environment in Harmony: Mini-units and Learning Activities for Grades 6-9; Transportation and the Environment in Harmony: Mini-units and Learning Activities for Grades 9-12; Transportation Consumer Education for Adults.	
		1. Students define "transportation" and the "environment" and identify the effects of each on the other. (Elementary/secondary)	Discussion
		2. Students create collages and mobiles illustrating modes of transportation and transportation facilities and their effects. (Elementary)	Art
		3. Students analyze songs about transportation's effects on the environment and compose songs of their own. (Elementary)	Discussion
		4. Students observe noise, air, water, and visual pollution of the environment associated with transportation vehicles and facilities. (Elementary/secondary)	Research
		5. Students discuss the extent to which automobile facilities take up land and provide service jobs in their community. (Elementary/secondary/adult)	Discussion

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
8. Environment and Transportation (contd.)		6. Students solve math problems and compare the fuel efficiency of different transportation vehicles. (Elementary)	Discussion
		7. Students identify noises associated with vehicles and transportation facilities. (Elementary)	Discussion
		8. Students discuss actions that can be taken by individuals who experience adverse environmental effects from transportation vehicles and facilities. (Elementary/secondary)	Discussion
		9. Students create posters depicting the relationship between transportation vehicles and our consumption of natural resources. (Elementary)	Art
		10. Students discuss actions individuals can take to avoid transportation's harmful effects on the environment that affect these same individuals personally. (Elementary/secondary)	Discussion
		11. Students discuss when it is appropriate to object to someone's use of transportation that is having detrimental effects on the environment. (Elementary/secondary)	Discussion
		12. Students identify the major effects transportation has on the environment and the ways in which features of the environment sometimes affect travel. (Secondary/adult)	Discussion
		13. Students engage in one or more scientific experiments that illustrate the harmful effects of automobiles on the environment. (Secondary)	Experiment

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
8. Environment and Transportation (contd.)		14. Students plan and defend the building of a new commercial airport in their community. (Secondary/adult)	Discussion
		15. Students discuss and evaluate actions the government is taking to reduce transportation's harmful effects on the environment. (Secondary/adult)	Discussion
		16. Students play a game in which they select and defend solutions to problem situations in which they are personally affected by transportation or the environment. (Secondary/adult)	Game
		17. Students discuss what actions private citizens can take in their personal travel behavior to reduce the harmful effects of automobile use on the environment. (Secondary/adult)	Discussion
		18. Students examine their own attitudes toward changing their travel habits in ways which will reduce transportation's harmful effects on the environment. (Secondary/adult)	Discussion
		19. Students discuss what kinds of citizen participation the public can engage in to balance the needs of transportation and the environment. (Secondary/adult)	Discussion
		20. Students poll the public on its knowledge about and attitudes toward conflicts between transportation and the environment. (Secondary/adult)	Poll

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
8. Environment and Transportation (contd.)		21. Students research the railroads as a personal travel alternative to the automobile. (Secondary/adult)	Research
		22. Students develop and play word games using transportation and the environment terms and concepts. (Secondary)	Game
		23. Students discuss the social and individual needs transportation meets. (Secondary/adult)	Discussion
		24. Students discuss how increased use of public transportation and carpools might help solve conflicts between transportation and the environment. (Secondary/adult)	Discussion
		25. Students take field trips to different agencies and individuals to learn about transportation's effects on the environment. (Secondary/adult)	Field Trip
		26. Students research the value of citizen participation in transportation planning and methods for participating. (Secondary/adult)	Research
		27. Students discuss the automobile's indirect effects on the environment. (Secondary/adult)	Discussion
		28. Students identify the beneficial effects highways and roads can have on the environment by evaluating a local highway or road in these terms. (Secondary/adult)	Discussion
		29. Students discuss what environmental criteria should be considered in transportation planning designed to reduce transportation's harmful effects on the environment. (Secondary/adult)	Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
8. Environment and Transportation (contd.)		30. Students analyze a current, planned, or proposed highway or road-construction project to balance travel needs with environmental safeguards and then present recommendations to the appropriate authorities. (Secondary/adult)	Research
		31. Students engage in volunteer work for organizations devoted to reducing transportation's harmful effects on the environment. (Secondary/adult)	Discussion
		32. Students participate in a hearing on transportation's effects on the environment. (Secondary/adult)	Field Trip

BIBLIOGRAPHY

a) Teacher Materials

*128. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide Unique curriculum guide devoted just to the consumer and transportation. Treats general environmental effects of transportation and also has a brief section on effects of airplanes on the environment. "Suggested Pupil and Teacher Activities" are not creative or detailed.

The University of the State of New York
State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

*129. THE NOISE CONTROL ACT OF 1972: HIGHLIGHTS, 1972. Grades 9-adult. 4 pages. Free.

Flyer Provides background to the legislation and the major provisions of the Noise Control Act.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*130. PARK AND RECREATIONAL FACILITIES: THEIR CONSIDERATION AS AN ENVIRONMENTAL FACTOR INFLUENCING THE LOCATION AND DESIGN OF A HIGHWAY, 1971. Grades 7-adult. 47 pages. 45¢.

Pamphlet Informative discussion of what criteria should be considered to protect playgrounds, parks, and parkways when building a highway.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

131. NOISE ASSESSMENT GUIDELINES, 1971. Grades 9-adult. 29 pages. 70¢.

Pamphlet Informative but somewhat technical discussion of how noise pollution can be minimized in the construction of highways, airports, and railways. Worksheets for recording relevant information are provided.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 2300-1194

132. TRANSPORTATION NOISE AND ITS CONTROL, 1972. Grades 7-adult. 27 pages. 70¢.

Pamphlet Informative, not too technical discussion of the nature of noise pollution, the decibel unit of measurement, the extent of noise caused by cars, trucks, planes, and rapid transit, and possibilities for reducing or eliminating transportation noises.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 50000-0057

**133. TRANSPORTATION NOISE POLLUTION: CONTROL AND ABATEMENT, 1970. Grades 7-adult. 190 pages. $6.00.

Pamphlet Very informative, in places technical discussion of the causes of transportation noise pollution and what can be done about them. Excellent charts, graphs, and cartoons.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
Stock Number N71-15557

**134. AUTOMOTIVE FUELS AND AIR POLLUTION, 1971. Grades 9-adult. 32 pages. 40¢.

Pamphlet Detailed account for the layman of automobile pollutants, their effects, and what can be done to eliminate or reduce them.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

135. AIRCRAFT AND AIR POLLUTION: SELECTED READINGS, 1971. Grades 7-adult. 61 pages. Price not listed.

Bibliography Bibliography of papers, reports, and periodical articles on environmental pollution caused by airplanes.

Department of Transportation
Library Services Division
Office of Administrative Operations
400 7th Street, S.W.
Washington, D.C. 20590

136. AIRCRAFT AND THE ENVIRONMENT, 1973. Grades 11-adult. 13 pages. Free.

Pamphlet Detailed description of the positive effects airplanes have on the environment, from crop spraying to fire fighting. Indispensible supplement to other accounts of airplanes' harmful effects on the environment.

Federal Aviation Administration
Aviation Education Programs Division A6A 300
Office of General Aviation Affairs
Washington, D.C. 20591

*137. COST OF AIR POLLUTION DAMAGE: A STATUS REPORT, 1973. Grades 7-adult. 73 pages. $2.50.

Pamphlet A review of studies on the cost of air pollution damage on human health, vegetation, materials, and residential property values. Transportation pollution is not singled out. Very analytical.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
Stock Number PB-222 040

*138. CITIZEN ACTION CAN GET RESULTS, 1972. Grades 9-adult. 9 pages. 20¢.

Pamphlet Three somewhat superficial case studies of how community political action successfully reduced environmental pollution. One case study on air pollution indirectly involves auto pollution. However, the case studies are useful as examples of citizen action, even though they are not directly related to transportation's environmental effects.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 5500-0070

139. AIRPORT PROBLEMS: ACCESS AND AIR TRAFFIC CONGESTION: SELECTED READINGS, 1971. Grades 9-adult. 34 pages. Price not listed.

Bibliography

Bibliography of articles, reports, and papers on airport access and air traffic delays. Both technical and nontechnical studies are listed.

Department of Transportation
Office of Administrative Operations
Library Services Division
400 7th Street, S.W.
Washington, D.C. 20590

**140. COMMUNITY INVOLVEMENT IN HIGHWAY PLANNING AND DESIGN, 1973. Grades 7-adult. 53 pages.

Conference Proceedings

Conference preceedings with informative discussions on the adequacy of public hearings, the characteristics of an effective prehearing community involvement program, and what actions can be taken to achieve early and effective public involvement.

U.S. Department of Transportation
Federal Highway Administration
Office of Environmental Policy
400 7th Street, S.W.
Washington, D.C. 20590

*141. COMMUNITY PARTICIPATION IN HIGHWAY PLANNING, 1972. Grades 7-adult. 59 pages. Price not listed.

Report

Recommendations to the Department of Transportation on how to promote citizen participation in highway planning efforts. Also discusses such issues as how citizens can be come motivated to participate in planning and how one can find representative, indigenous leaders who will represent a community in the planning process.

U.S. Department of Transportation
Office of Consumer Affairs
400 7th Street, S.W.
Washington, D.C. 20590

*142. READINGS FOR THE ECO-ACTIVIST, 1972. Grades 7-adult. 41 pages. Price not listed.

Bibliography

A bibliography of environmental publications of the Federal government for young persons interested in involvement in environmental problems. There are chapters on air, water, and noise pollution that include materials on transportation pollution.

Division of Information Services
Office of Library Services
U.S. Department of the Interior
Washington, D.C. 20240

**143. GROUPS THAT CAN HELP: A DIRECTORY OF ENVIRONMENTAL ORGANIZATIONS, 1972. Grades 5-adult. 12 pages. Free.

Directory Extremely useful listing of organizations that can be contacted by individuals seeking information and advice on environmental problems, including problems created by transportation.

U.S. Environmental Protection Agency
Office of Public Affairs
Waterside Mall
Washington, D.C. 20460

b) Student Materials

**144. HEALTH EFFECTS OF ENVIRONMENTAL POLLUTION, 1973. Grades 10-adult. 20 pages. 30¢.

Pamphlet Very useful overview of the effects of air, water, and noise pollution on human health.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*145. NEEDED: CLEAN AIR: THE FACTS ABOUT AIR POLLUTION, 1972. Grades 7-adult. 15 pages. 25¢.

Pamphlet Useful but very sketchy overview of the effects of air pollution on health, energy depletion, and economic costs. Transportation is included as one of the sources of pollution. Some students may find the cartoon format condescending or childish.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, Mass. 01301

*146. VANISHING AIR, by John C. Esposito, 1970. Grades 11-adult. 328 pages. 95¢, paperback.

Book Highly critical account of government's attempt to regulate air pollution and industry's alleged attempts to avoid self-regulation. Chapter 1 on general causes and effects of air pollution and the section of Chapter 6 on air pollution from airplanes are relevant and informative. Major attention is paid to automobile pollution; author blames the government for not enforcing strict standards and the industry for not taking actions of its own and attempting to avoid Federal and state controls. Book treats air pollution from sources other than transportation. A Ralph Nader Study Group Report.

Grossman Publishers
125A East 19th Street
New York, New York 10003

*147. AIR POLLUTION: THE WORLD'S EXHAUST, 1971. Grades 9-11. 62 pages. $1.00

Book

Overview of the air pollution problem, with discussions of smog, what air pollution is, automobile pollution, health effects, effects on the weather, and who should be responsible for preventing air pollution. Approach is to raise questions rather than present solutions.

Pendulum Press, Inc.
The Academic Building
Saw Mill Road
West Haven, Connecticut 06516

*148. RAILROADS AND THE ENVIRONMENT IN RAIL FREIGHT OPERATIONS, 1972. Grades 10-adult. 28 pages. 30¢.

Pamphlet

Concise, informative discussion of railroad pollution and abatement, including odors, engine exhaust emissions, sanitary waste control, noise, and land use. Photographs.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*149. NOISE POLLUTION, 1972. Grades 11-adult. 13 pages. 35¢.

Pamphlet

Informative discussion of what sound is, how it affects our r health, and general ideas for solutions. Noise from transportation pollution sources is discussed.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 5500-0072

*150. NOISE AND YOU, 1970. Grades 7-adult. 15 pages. 25¢.

Pamphlet Brief overview of the nature of noise and the dangers of too much and too loud noise. Not tied in specifically with transportation noise. Informative, but in a cartoon format that some students may find condescending or childish.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, Mass. 03101

*151. THE NOISE CONTROL ACT OF 1972: HIGHLIGHTS, 1973. Grades 10-adult. 4 pages. Free.

Flyer Brief, useful overview of the law's major provisions, with paragraphs on the effects of noise, some common noisemakers, and citizen suits.

Office of Public Affairs
U.S. Environmental Protection Agency
Waterside Mall
Washington, D.C. 20460

*152. NOISE: THE UNSEEN ENEMY, 1972. Grades 9-11. 63 pages. $1.00, paperback.

Book Overview of the noise pollution problem, with discussions of what sound is, physical and psychological effects, and supersonic aircraft noise. Well illustrated, but little of booklet deals with transportation noise pollution per se.

Pendulum Press, Inc.
The Academic Building
Saw Mill Road
West Haven, Connecticut 06516

153. THE FREEWAY IN THE CITY, 1968. Adult. 141 pages. $3.00.

Book Somewhat technical discussion of the principles of urban freeway planning and design that considers environmental concerns in terms of the view from the freeway, location of the freeway, and highway structures. Well illustrated.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

**154. THE ACCESSIBLE CITY, by Wilfred Owen. 150 pages. Adult. $2.95, paperback.

Book General discussion of big city transportation problems, with emphasis on rational planning to avoid problems. Chapter on public transport provides useful background information on one alternative to the automobile. Sections on transportation planning consider concerns about land use and esthetics.

The Brookings Institution
1775 Massachusetts Avenue
Washington, D.C. 20036

**155. HIGHWAYS AND OUR ENVIRONMENT, by John Robinson, 1971. Grades 10-adult. 332 pages. $24.00.

Book Well written, highly informative, and impassioned account of how highways and the automobiles they serve have blighted the environment with litter, concrete, air and noise pollution, and visual unsightliness. Chapters on citizen action and the highway establishment are very useful. One appendix lists citizen action groups and government agencies involved in transportation and the environment. A profusion of valuable photographs make the work unique.

McGraw-Hill Book Company
1221 Avenue of the Americas
New York, New York 10020

**156. UNSAFE AT ANY SPEED, by Ralph Nader; revised edition, 1972. Grades 9-adult. 367 pages. $1.95, paperback.

Book New edition of now classic study of automobile industry's alleged lack of attention to safety. Chapter 4, "The Power to Pollute," attributes the failure to control automobile pollution to industry delays, collusion, and miserliness. Book as a whole is indispensible for this view toward responsibility for pollution and efforts to control it, even though most of book is about automobile safety.

Bantam Books Inc.
666 5th Avenue
New York, N.Y. 10022

*157. RETHINKING YOUR AUTOMOBILE, 1973. Grades 10-adult. 6 pages. Free.

Flyer Brief discussion of consumer's role in reducing use of cars in view of the energy shortage.

Office of Public Affairs
U.S. Environmental Protection Agency
Waterside Mall
Washington, D.C. 20460

158. SUPERHIGHWAY--SUPERHOAX, by Helen Leavitt, 1970. 95¢.

Book A polemic with facts about Federal highway programs, funding, and operations; cites problems and issues in localities throughout the U.S.; special chapter on urban highway problems; information on alternative transit systems. (Not evaluated.)

Ballantine Books, Inc.
201 E. 50th Street
New York, New York 10022

159. GOVERNMENTAL APPROACHES TO AUTOMOBILE AIR POLLUTION CONTROL, 1971. $3.00.

Pamphlet Discusses industry's control of auto emissions, consumer control, and advantages and disadvantages of standard-setting and traffic system designs. (Not evaluated.)

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
Publication No. PB203-952

***160. A CITIZEN'S GUIDE TO CLEAN AIR, 1972. Grades 9-adult. 95 pages. Free.

Pamphlet An extremely useful, detailed account of the clean air laws and how citizens can advocate and plan for the control of air pollution. One chapter deals with auto emission controls, another with the citizen's legal rights, and a third with the citizen's role in policy making.

The Conservation Foundation
1717 Massachusetts Avenue, N.W.
Washington, D.C. 20036

**161. THE CAMPAIGN FOR CLEANER AIR, by Marvin Zeldin, 1973. Grades 11-adult. 28 pages. 35¢.

Pamphlet Informative, factual account on clean air, including the Clean Air Act, implementing the law, controlling automobile pollution, and the citizen's role.

Public Affairs Pamphlets
381 Park Ave. South
New York, New York 10016
Pamphlet No. 494

162. ACTION FOR CLEAN AIR: A MANUAL FOR CITIZEN PARTICIPATION IN STATE IMPLEMENTATION PLAN PROCEEDINGS UNDER THE CLEAN AIR AMENDMENTS OF 1970, 1971. Price not listed.

Pamphlet Explains in detail the Act and regulations for implementation plans; makes specific suggestions for action by individuals and by organized citizen groups. Emphasizes legal procedures and citizens' legal rights. (Not evaluated.)

Natural Resources Defense Council
36 West 44th Street
New York, New York 10036

*163. A CITIZEN'S GUIDE TO CLEAN WATER, 1973. Grades 9-adult. 95 pages. Free.

Pamphlet An extremely useful, detailed account of the clean water laws and how citizens can advocate and plan for the control of water pollution. However, laws and pamphlet deal primarily with pollution from industrial sources, rather than transportation facilities.

Office of Public Affairs
U.S. Environmental Protection Agency
Waterside Mall
Washington, D.C. 20460

*164. PROCESS GUIDELINES: THE ACTION PLAN, 1972. Grades 9-adult. 9 pages. Free.

Flyer Brief discussion of state action plans under which states must consider economic, social, and environmental factors when planning highway construction.

U.S. Department of Transportation
Federal Highway Administration
Office of Environmental Policy
400 7th Street
Washington, D.C. 20590

**165. ACTION FOR ENVIRONMENTAL QUALITY, 1973. Grades 9-adult. 21 pages. Free.

Pamphlet Discussion of standards and enforcement measures for air and water pollution.

Office of Public Affairs
U.S. Environmental Protection Agency
Waterside Mall
Washington, D.C. 20460

**166. DON'T LEAVE IT ALL TO THE EXPERTS: THE CITIZEN'S ROLE IN ENVIRONMENTAL DECISION MAKING, 1972. Grades 9-adult. 19 pages. Free.

Pamphlet Identification of methods by which citizens can protect the environment, including becoming informed, knowing the law, lobbying, fighting for funds, and knowing your rights.

Office of Public Affairs
U.S. Environmental Protection Agency
Waterside Mall
Washington, D.C. 20460

***167. RITE OF WAY: THE POLITICS OF TRANSPORTATION IN BOSTON AND THE U.S. CITY, by Alan Lupo, Frank Colcord, and Edmund P. Fowler, 1971. Adult. 294 pages. $3.95, paperback.

Book Detailed account of how community opposition in metropolitan Boston forced the state and local governments and quasiindependent commissions to abandon plans to construct freeways in and around the city. Book also discusses who makes transportation decisions in other major U.S. cities and the politics of such decisions. Excellent example of citizen action seeking to alter the environmental effects of transportation decisions on population displacement, traffic congestion, land use, and esthetics.

Little, Brown and Company
34 Beacon Street
Boston, Massachusetts

***168. ECOTACTICS: A SIERRA CLUB HANDBOOK FOR ENVIRONMENT ACTIVISTS, 1970. Grades 10-adult. 287 pages. 95¢, paperback.

Book Informative essays on the nature of several different aspects of the environmental crisis, including transportation's effects on the environment. Especially useful for descriptions of methods by which citizens can individually and collectively work to reduce pollution. Many readers, however, will find some of the tactics beyond their ability, energy, or interest and inappropriate on ethical grounds. Many tactics described with reference to industrial pollution are equally applicable to pollution caused by transportation. Appendices list books, environmental groups and societies, and key Federal agencies of relevance to activists.

Pocket Books
630 Fifth Avenue
New York, New York 10020

c) Audiovisual Materials

169. THE WORLD'S EXHAUST--AIR POLLUTION, n.d. Grades 9-12. Filmstrip with record, $19.50; with cassette, $21.50.

Filmstrip

Depicts a wide range of air pollution problems, including its sources, effects, and measures needed to curb such pollution.

Pendulum Press, Inc.
The Academic Building
Saw Mill Road
West Haven, Connecticut 06516

170. THE UNSEEN ENEMY--NOISE, n.d. Grades 9-12. Filmstrip with record, $19.50; with cassette, $21.50.

Filmstrip

Explores phenomenon of sound and the effects of excessive noise.

Pendulum Press, Inc.
The Academic Building
Saw Mill Road
West Haven, Connecticut 06516

171. OUR WOUNDED LAND--LAND AND TRASH, n.d. Grades 9-12. Filmstrip with record, $19.50; with cassette, $21.50.

Filmstrip

Treats the energy shortage and possible solutions.

Pendulum Press, Inc.
The Academic Building
Saw Mill Road
West Haven, Connecticut 06516

9. GOODS MOVEMENT: HOUSEHOLD AND FREIGHT

The United States is a country on the move. The average family changes residence once every five years. This involves significant expenses including the moving fees, insurance costs, and potential losses of household goods. In general, many consumers are dissatisfied with the service they are getting. The Interstate Commerce Commission receives from 8000 to 10,000 letters a year from disgruntled customers. The complaints cover grossly underestimated costs, late pick-ups and deliveries, damaged and lost goods, and difficulty in settling claims.

Wherever the mobile American locates, he or she is then provided with the necessities and services of modern life through an intricate freight-carrying network. Although this system includes air and rail transportation, the most significant form of transport is trucking.

Trucks carry on the average more than two-thirds of all agricultural products, raw materials, and manufactured goods in the country. This is done through both private carriers and for-hire carriers.[1] Obviously the consumer has an interest in how this system operates and is regulated. Furthermore, he may wish to ship freight himself using any of the above modes for personal or business reasons.

Education provides an excellent opportunity for the transportation consumer to develop skills necessary for determining appropriate methods for moving goods and freight; choosing and hiring a moving company; insuring private property; and seeking redress of grievances for loss or damage to property.

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[1] American Trucking Association, American Trucking Trends, 1972.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
9. Goods Movement	Students demonstrate knowledge, skills, and attitudes about movement of freight and household goods in order to make responsible decisions about 1. methods for moving goods and freight (2,5,9);* 2. choosing and hiring a moving company (1,4,6);* 3. insuring personal property (1,4,8);* and 4. seeking redress of grievances (3,4,8).*	1. Students role-play hiring a shipper to move their possessions by simulating a telephone conversation in which they ask appropriate questions based on the check list developed in Activity 7 or one provided by the teacher. (Secondary/adult)	Role-play
		2. Students are given or create scenarios describing different types of goods that are to be moved within specific periods of time to indicated destinations. In small groups, students decide what the best way is to move the goods for each scenario. (Secondary/adult)	Discussion
		3. Students interview or write appropriate consumer protection agencies to determine what forms of redress of grievances are available to them should they feel a moving company has been unfair. (Secondary/adult)	Interviews
		4. Students discuss the feelings people may have when they want to be firm in demanding their rights with movers, such as embarrassment and fear of retaliation. Students then discuss methods of overcoming these concerns and role-play scenarios in which they go through steps of arranging to have their goods moved by a shipper. (Secondary/adult)	Discussion/ role-play
		5. Students discuss goods movement within the context of the entire field of transportation and identify the important interfaces between goods movement and other transportation concerns and topics. (Secondary/adult)	Discussion

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
9. Goods Movement (contd.)		6. Students invite a shipping company agent to class to discuss advantages and disadvantages of using a shipper for transporting goods, as opposed to doing it oneself. (Secondary/adult)	Lecture
		7. Students read Summary of Information for Shippers of Household Goods and develop check lists of activities property owners should engage in when they move goods. (Secondary/adult)	Reading
		8. Students interview people who have moved their household goods to learn what, if any, problems they had; what, if anything, they did about these problems; and how they might move their goods differently in the future. (Secondary/adult)	Interviews
		9. Students organize their own moving company and move possessions for classmates or the community. (Secondary/adult)	Volunteer work

BIBLIOGRAPHY

a) Teacher Materials

*172. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide Unique curriculum guide that covers all major areas of transportation, including goods movement, but few "Suggested Pupil and Teacher Activities" are detailed or exciting. Guide is organized by understandings, activities, and sources. Good photographs and drawings provided.

The University of the State of New York
State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

*173. OUR RAILROADS IN PRINT, 1973. Grades K-adult. 76 pages. Free.

Bibliography Annotated and comprehensive listing of books and periodicals on every aspect of trains. Most are for the general reader. Included are children's and juvenile books. Complete publisher's addresses are provided.

Association of American Railroads
Office of Information and Public Affairs
1920 L Street, N.W.
Washington, D.C. 20036

b) Student Materials

**174. SUMMARY OF INFORMATION FOR SHIPPERS OF HOUSEHOLD GOODS, 1972. Adults. 17 pages. 20¢.

Pamphlet Basic practical information on what citizens who move their possessions can expect from moving companies, including preparation, costs, bill of lading document, mover's liability, and delivery.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*175. PEOPLE ON THE MOVE, 1971. Adults. 7 pages. Free.

Pamphlet Sources of vital information and assistance on shipping goods for people contemplating household moving. Included are the addresses and telephone numbers of the field offices of the Interstate Commerce Commission (ICC). A questionnaire at the end can be filled in and mailed to the ICC to inform the Commission of the quality of service received from the mover.

Interstate Commerce Commission
12th and Constitution Avenue, N.W.
Washington, D.C. 20423

**176. HOUSEHOLDERS' GUIDE TO ACCURATE WEIGHTS, 1971. Adults. 6 pages. Free.

Pamphlet Brief discussion for householders who are moving about how to ensure that accurate weights are obtained on their shipment, since the major cost of any household move depends on the weight of the goods and the distance they are to be moved. Pamphlet is very informative and provides reproductions of sample forms.

Interstate Commerce Commission
12th and Constitution Avenue, N.W.
Washington, D.C. 20423

177. GUIDE TO AIR SHIPPERS' RIGHTS, 1973. Grades 10-adult. 16 pages. 40¢.

Pamphlet Useful discussion of different methods of shipping goods by air, rates, delays, carriers' liabilities, and redress of grievances.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 0306-0050

c) Audiovisual Materials

No relevant audiovisual materials on goods movement have been located.

10. HITCHHIKING

Hitchhiking, long a part of the American scene, has exploded in popularity in recent years. According to the American Automobile Association, "more young people than ever before are on the roads, heading somewhere. It appears that the number of hitchhikers has actually doubled in the past decade."[1]

Hitchhiking is being used to take both short (to school, shopping) and long distance (cross-country, recreation) trips. Its increasing use makes it necessary for the user, the driver, the concerned parent, and teachers working with these age groups to inform themselves that hitchhiking is hazardous and usually illegal. All but six states have anti-hitchhiking laws, and hitchhiking is prohibited on much of the interstate highway system, although many of these laws are not strictly enforced.

Although hitchhiking might provide a relatively flexible and cheap mode of transportation for the rider, it has an enormous potential danger for both rider and driver. Each year thousands of young girl hitchhikers are molested, male hitchhikers are beaten and robbed, and drivers are assaulted. Murders related to hitchhiking have not been uncommon. Therefore, both the rider and driver should be able to evaluate a hitchhiking situation to decide whether or not to become involved in it, and if so, to assess what precautions to take. The law has a role to play, too, since hitchhiking can result in highway accidents in addition to criminal acts.

An educational program on hitchhiking can enable the consumer to understand why hitchhiking is inadvisable for both driver and rider and to recognize why it is important to advocate the passage and enforcement of antihitchhiking legislation.

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[1] Lester David, "Hitchhiking: The Deadly New Odds," Good Housekeeping, July 1973, p. 38.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
10. Hitchhiking	Students demonstrate knowledge, skills, and attitudes about hitchhiking in order to make responsible decisions about 1. whether to hitchhike (1,3,4,6,8);* 2. whether to pick up hitchhikers (7,9);* 3. whether hitchhiking can be safe (1,2,5,);* and 4. advocating antihitchhiking legislation (1,3).*	1. Students discuss hitchhiking within the context of the entire field of transportation and identify the important interfaces between hitchhiking and other transportation concerns and topics. (Secondary/adult)	Discussion
		2. Students role-play or write how they would respond to one or more of the following scenarios: ● After accepting a ride, hitchhiker notices driver has alcohol on his breath and is weaving on the road. They are driving on a freeway and the hitchhiker's destination is 300 miles away. ● After accepting a ride, hitchhiker notices driver is speeding and driving recklessly. They are in the city and 30 blocks from the hitchhiker's destination. (Secondary/adult)	Role-play
		3. Students simulate a community, town, or neighborhood meeting at which a proposed law to ban hitchhiking has been raised for consideration. Students can be assigned positions on the issues or represent their own views. Scenario can be created (a town of 10,000, mostly rural, large college campus in the vicinity, etc.), or students' own community or another one they are familiar with can be used. This activity can also be conducted as a small group or class discussion activity. (Secondary/adult)	Role-play

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
10. Hitchhiking (contd.)		4. Students identify alternatives to hitchhiking--for example, driving a car across country for an insurance company or tourist, consulting school bulletin boards for drivers seeking passengers for trips, bicycling, walking, and public transportation. (Secondary/adult)	Discussion
		5. Students write a science fiction story about a society in which hitchhiking is the rule, cars the exception, but an organized method for orderly and safe hitchhiking must be developed. Students compare results and discuss whether any of the provisions in their fictional societies could be instituted in their community. (Secondary/adult)	Writing
		6. Students discuss whether they would hitchhike in the following situations and in other situations of their own creation. • You are a 40-year-old male and your car has broken down on a deserted stretch of an interstate highway, 12 miles from the nearest exit. • You are a 17-year-old woman who just missed the bus to get to an important job interview. You'll be late if you can't catch another bus in ten minutes, but these buses normally run only every thirty minutes. You are in the middle of a large middle-class suburb with $5.00 in your pocket.	Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
10. Hitchhiking (contd.)		● You are a university student waiting by the mile-long bridge for a bus to take you back to your dormitory. There are lots of other students milling about, some also waiting for the bus. A car with a driver who looks like another student stops and yells out to the crowd, "Jump in, I'll give you a lift over the bridge." You happen to be standing closest to the car. (Secondary/adult)	
		7. Students discuss whether, as drivers, they would pick up hitchhikers by responding to scenarios of different types of hitchhikers (clothing, part of town, etc.). (Secondary/adult)	Discussion
		8. Students identify pros and cons of hitchhiking. (Secondary/adult)	Discussion
		9. Students discuss hitchhiking with a local police officer or state trooper invited to visit the class.	Discussion
		10. Students role-play scenarios depicting accidents caused by hitchhiking situations.	Role-play

BIBLIOGRAPHY

a) Teacher Materials

No relevant teacher materials on hitchhiking have been located.

b) Student Materials

**178. THE HITCHHIKER'S FIELD MANUAL, by Paul DiMaggio, 1973. Grades 9-adult. 335 pages. $1.95, paperback.

Book Comprehensive, informative discussion of all aspects of hitchhiking including history, planning, equipment needed, safety, women's hitchhiking problems, where to sleep, and all 50 state hitchhiking laws.

MacMillan Co.
868 3rd Avenue
New York, New York 10022

c) Audiovisual Materials

No relevant audiovisual materials on hitchhiking have been located.

11. MOTORCYCLES

There are close to 15 million motorcyclists in the United States today. One hundred and thirteen thousand or 17.7 percent more motorcycles were registered in 1976 than were registered in 1975.[1] This represents an 11 percent increase over a one-year period. Not only are larger numbers of people participating in the motorcycle experience, but a wider variety of people are involved. Business executives, homemakers, and blue-collar workers are among those who use their "bike" for anything from daily commuting to cross-country jaunts.

There are a number of important consumer issues involving the motorcycle. The motorcycle represents a substantial financial investment, so the consumer should be familiar with criteria important for evaluating vehicles and maintenance. Furthermore, it is important that the increasing number of motorcycle users be familiar with safety problems and practices. In a report presented to the Highway Research Board in 1966, it was concluded that a cyclist's chances of being killed are 20 times greater than those of an automobile driver.[2] An educational program concerning motorcycles can enable the transportation consumer to make responsible decisions about needed (and desired) motorcycle characteristics; purchasing and maintaining a motorcycle; riding safely; and seeking redress of grievances.

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1. Motorcycle Industry Council, Washington, D.C., 1976.

2. Lee Gutkind, "Two-Wheeled Intruders in a Four-Wheeled Culture," The New York Times, June 10, 1973, Section 10, Part 2, page 46.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
11. Motorcycles	Students demonstrate knowledge, skills, and attitudes about motorcycles as a means of transportation and recreation in order to make responsible decisions about 1. motorcycle characteristics needed and desired (2-6,8);* 2. purchasing a motorcycle (2-6,8,11);* 3. maintaining a motorcycle (6);* and 4. riding safely (1,8,9,10).*	1. Students develop a collage depicting safe and dangerous cycling behavior. (Elementary)	Art
		2. Students discuss motorcycles within the context of the entire field of transportation and identify the important interfaces between motorcycles and other transportation concerns and topics. (Secondary/adult)	Discussion
		3. Students debate the topic: Resolved that motorcycles are a cost-effective means of transportation in the city. (Secondary/adult)	Debate
		4. Students in small groups discuss what type of motorcycle they would like to buy and justify their choices to each other. (Secondary/adult)	Discussion
		5. Students discuss some of the nonutilitarian reasons for buying a motorcycle (such as for thrills, speed, and machismo) and discuss which, if any, of these are legitimate reasons for buying a motorcycle. (Secondary/adult)	Discussion
		6. Students compare new motorcycle warranties and discuss their differences and the extent to which warranties do and should influence buyers' selection of motorcycles. (Secondary/adult)	Discussion
		7. Students discuss dangerous motorcycling habits that drivers cannot seem to resist, like weaving in and out of lanes and tailgating, and seek to discover methods to encourage motorcycle drivers not to give in to these temptations. (Secondary/adult)	Discussion

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
11. Motorcycles (contd.)		8. Students interview motorcycle salesmen on what criteria they feel motorcycle purchasers use and should use in buying a new or used motorcycle. Students compare these criteria with their own and, if they differ, discuss why motorcycle salesmen may have different criteria. (Secondary/adult)	Interviews
		9. Students discuss what attitudes auto drivers have toward motorcyclists by interviewing car drivers. Students then discuss how these attitudes may carry over into unsafe or hostile car-driving tactics when motorcycles are on the road. (Secondary/adult)	Discussion
		10. Students poll motorcycle drivers and salespeople, pedestrians, automobile drivers, and other groups on motorcycle safety.* (Secondary/adult)	Poll
		11. Students role-play a youngster trying to persuade a parent to buy him or her a minibike.* (Secondary/adult)	Role-play

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*These activities may be found in one or more of the following manuals: GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12; Transportation Consumer Education for Adults: Mini-units and Learning Activities.

BIBLIOGRAPHY

a) Teacher Materials

179. MOTORCYCLES IN THE UNITED STATES, 1967. Grades 10-adult. 12 pages. 10¢.

Pamphlet Discussion, somewhat outdated, on the popularity, dangers, and operation of motorcycles. A section is included on how auto drivers should respond to motorcycles on the highway. No teaching activities included.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*180. MOTORCYCLES AND THEIR OPERATION, 1972. Grades 10-adult. 20 pages. 14¢.

Pamphlet Overview of motorcycle problems, including discussion of increase in registration, accident records, maintenance, licensing procedures, and legislation. The resources section on literature, films, and magazines is very useful.

American Automobile Association
Traffic Engineering and Safety Department
1712 G Street, N.W.
Washington, D.C. 20006

181. NATIONAL SAFETY COUNCIL CATALOGUE, 1973. Grades K-adult. 85 pages. Free.

Catalog Comprehensive catalogue on all aspects of safety, including motorcycles. Included are listings of booklets, manuals, films and filmstrips, and posters.

National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

182. MINIBIKE BACKGROUND INFORMATION, 1971. Grades 10-12. 6 pages. Free.

Pamphlet Basic information on sales, dangers, regulations, purchase, insurance, and maintenance. Suggested references for further reading are provided.

American Automobile Association
Traffic Engineering and Safety Department
1712 G Street, N.W.
Washington, D.C. 20006

183. MINIBIKES. Gordon Jennings. Grades 8-adult. 91 pages.

Guide A Guide to buying, riding, and maintaining a minibike.

Prentice-Hall, Inc.
Englewood Cliffs
New Jersey

184. GUIDE TO SAFE MOTORCYCLING, 1971. Grades 10-adult. 47 pages. 4¢.

Pamphlet A useful, comprehensive manual for motorcycle drivers on operation, maintenance, and safety. Humorous cartoons enliven a dry text.

American Automobile Association
1712 G Street, N.W.
Washington, D.C. 20006

185. MOTORCYCLING AND YOU, 1969. Grades 10-adult. 15 pages. 25¢.

Pamphlet Brief, introductory discussion of motorcycling safety. However, pamphlet is not only skimpy but injunctive in approach, and while its admonition that motorcyclists must drive better than automobile drivers is wise, its claim that motorcycling is not dangerous if riders know their machine, obey traffic laws, and ride carefully and skillfully is misleading. Topics covered include use of brakes and gears, defensive driving, steering, and helmets. Some students may find cartoon format and injunctive approach condescending or childish. Part of a series of ten pamphlets on highway traffic safety.

Channing L. Bete Co. Inc.
45 Federal Street
Greenfield, Massachusetts 01301

186. TO THE PROUD NEW OWNER OF A TRAILBIKE. . ., 1972. Grades 11-adult. 38 pages. Free.

Pamphlet Informal advice to the new motorcycle owner on such topics as safety, politeness, repairs, dress, and routes.

Motorcycle Industry Council, Inc.
1001 Connecticut Avenue, N.W.
Washington, D.C. 20036

*187. MOTORCYCLE SAFETY, n.d. Grades 11-adult. 15 pages. Free.

Pamphlet Brief discussion of motorcycle safety topics, including operating motorcycle control features, common hazards, and proper riding apparel.

Motorcycle Industry Council, Inc.
1001 Connecticut Avenue, N.W.
Washington, D.C. 20036

188. NATIONAL DIRECTORY OF SAFETY FILMS, 1971. Grades 10-adult. 60 pages. $3.50.

Catalogue

Capsule description of safety films that can be rented from the National Safety Council; however, none are evaluated and many are included that are either poor or mediocre. The reader must take "pot luck" and preview all films ordered before using with students.

National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

189. MOTORCYCLES AND THEIR OPERATION, 1972. Grades 10-adult. 20 pages. 14¢.

Bibliography

Overview of motorcycle problems with a resource section of 24 films, including ordering sources and prices.

American Automobile Association
Traffic Engineering and Safety Department
1712 G Street, N.W.
Washington, D.C. 20006

12. PEDESTRIANS

Ten thousand pedestrians are killed annually and pedestrian fatalities account for 19 percent of all highway fatalities--50 percent of all big-city traffic fatalities. Each year, about 400,000 people are struck by vehicles.[1] Everyone is a pedestrian at some time. For those without access to other modes, walking can be a major form of transportation used for many types of trips. Others walk to achieve maximum flexibility in a congested area, and others for recreation. The matter of pedestrian safety is particularly important because the pedestrian is usually in an area where other modes are operating and he or she is vulnerable to injury. In order to be more aware and defensive in these situations, the pedestrian should know about potential hazards and how to make use of safety devices provided in the roadway (signs, signals, etc.). Walking for recreation can also be more enjoyable if the pedestrian is equipped with proper clothing and accessories. Techniques of proper walking should be followed if the full health benefits of this exercise are to be gained.

Furthermore, there are certain elements of transportation planning and design that should respond to pedestrian needs and behavior. If the consumer is aware of these, he can evaluate pedestrian facilities in his community and promote better facilities if present ones are inadequate.

A consumer education program concerned with walking can enable the student to make responsible decisions about when to walk; walking safely; and advocating and planning pedestrian facilities.

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[1] National Safety Council, Accident Facts, 1973 edition.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
12. Pedestrians	Students demonstrate knowledge, skills, and attitudes about walking as a means of transportation in order to make responsible decisions about 1. when to walk (1,3,4,6);* 2. walking safely (1-5,7,9);* and 3. advocating and planning pedestrian facilities (8,9).*	The following activities may be found in one or more of these five transportation consumer education manuals developed by Abt Associates Inc.: TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades K-3; TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades 4-6; Transportation Consumer Education for Adults: Mini-units and Learning Activities; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12.	
		1. Students draw pictures and discuss them in light of the safety issues involved. (Elementary)	Art Discussion
		2. Students play games to enhance auditory perception. (Elementary)	Game
		3. Students learn the meaning of traffic and pedestrian signs using flashcards. (Elementary)	Game
		4. Students learn proper pedestrian behavior by playing games. (Elementary)	Game
		5. Students conduct an experiment on group pressure and why people exert pressure on others to walk and play safely and unsafely. (Elementary)	Experiment
		6. Students discuss what restriction they would set for their children on walking and playing safely. (Elementary)	Discussion

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
12. Pedestrians (contd.)		7. Students explore ways to cope with pressures to walk and play unsafely by responding to hypothetical letters from various age students in situations of conflict about walking and playing. (Elementary/secondary)	Writing
		8. Students identify pedestrian hazards and formulate appropriate community countermeasures to enhance pedestrian safety. (Secondary/elementary)	Research

BIBLIOGRAPHY

a) Teacher Materials

*190. TRAFFIC AND PEDESTRIAN EDUCATION SYSTEMS, 1973. Grades 4-6. 37-page leader's guide, 23 spirit masters, 15 cassette tapes, 15 filmstrips. $86.00.

Module Comprehensive multimedia unit coverning all aspects of pedestrian safety for youngsters, including crossing streets, selecting safe routes to school, care with railroad tracks, and the meaning of signs. Behavior in cars and bicycle riding are also covered. Unit consists of 15 modules. For each module, the following are provided: audio-tape geared to filmstrip; "immediate reinforcement activities" consisting of suggested activities such as songs and children's games; discussion topics; one to two activity masters--activities consist of coloring exercises; and supplemental reinforcement activities such as reading poems, making wall murals, creating trains out of cartons, role-plays, and children's games. Activities are creative but not always detailed. Sheet music for nine songs is provided. Tapes have music, singing, and dialogue. General approach is injunctive and cognitive, but many activities present the opportunity for more open-ended and affectively oriented classroom experiences. Filmstrip and spirit masters use ethnic minorities but are very middle class.

Elisar Research Corporation
15 East Forty-Eighth Street
New York, New York

191. SAFETY INSTRUCTIONAL SYSTEM, n.d. Grades K-6. 285 pages. $2.00.

Guide Excellent guide that covers pedestrian, school bus, bicycle, auto passenger, and school environment pedestrian safety. Activities are plentiful, creative, and detailed. Bibliography is complete. Well illustrated. Guide does fail to discuss or include activities on affective safety issues such as peer pressure, rebellion, search for "kicks," and "it-won't-happen-to-me" thinking.

Maryland State Department of Education
Post Office Box 8717
Friendship International Airport
Baltimore, Maryland

192. THREAT DETECTION TRAINING PROGRAMS FOR CHILD PEDESTRIAN SAFETY: VOLUME 1: CONDUCT, RESULTS AND RECOMMENDATIONS, 1975. 40 pages, plus appendices. $3.00.

Guide Excellent set of classroom activities on pedestrian safety. Several have been included in this module.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151

193. URBAN PEDESTRIAN ACCIDENT COUNTERMEASURE EXPERIMENTAL EVALUATION: VOLUME 1: BEHAVIORAL EVALUATION STUDIES, 1975. 107 pages. $4.25.

Study Somewhat technical study of the extent to which nine pedestrian safety countermeasures effectively reduced pedestrian accidents. Considerable useful discussion on the causes of pedestrian accidents and how to prevent them.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151

b) Student Materials

194. A-B-C's OF PEDESTRIAN SAFETY, 1969. Grades 9-adult. 15 pages. 25¢.

Pamphlet Discussion for drivers and pedestrians of pedestrian safety. Moralizes too much about what pedestrians and drivers should and shouldn't do. Topics discussed include intersections, nighttime and bad weather, and youthful and elderly pedestrians. Topics are covered very briefly in a heavy cartoon format that some students may find condescending or childish. Part of a series of ten pamphlets on highway safety.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, Massachusetts 01301

c) Audiovisual Materials

*195. TRAFFIC AND PEDESTRIAN EDUCATION SYSTEMS, 1973. Grades 4-6. 37-page leader's guide, 23 spirit masters, 15 cassette tapes, 15 filmstrips. $86.00.

Module Comprehensive multimedia unit covering all aspects of pedestrian safety for youngsters, including crossing streets, selecting safe routes to school, care with railroad tracks, and the meaning of signs. Behavior in cars and bicycle riding are also covered. Unit consists of 15 modules. For each module, the following are provided: audio-tape geared to filmstrip; "immediate reinforcement activities" consisting of suggested activities such as songs and children's games; discussion topics; one to two activity sheets that are reproduced for students using spirit masters--activities consist of coloring exercises; and supplemental reinforcement activities such as reading poems, making wall murals, creating trains out of cartons, role-plays, and children's games. Activities are creative but not always detailed. Sheet music for nine songs is provided. Tapes have music, singing, and dialogue. General approach is injunctive and cognitive, but many activities present the opportunity for more open-ended and affectively oriented classroom experiences. Filmstrip and spirit masters use ethnic minorities but are very middle class.

Elisar Research Corporation
15 East Forty-Eighth Street
New York, New York 10017

196. TRANSPORTATION SAFETY FILMS. K-adult. 2 pages. Free.

Catalogue Annotated list of films on traffic safety, from freeway driving to pedestrians.

Contact nearest American Automobile Association (AAA) office or
AAA Foundation for Traffic Safety
1712 G Street, N.W.
Washington, D.C. 20006

13. PUBLIC TRANSPORTATION[1]

Public transportation was once the major form of intracity and intracommunity transportation, but the advent of the automobile and metropolitan sprawl changed all that. Transit service deteriorated and local systems operated at an estimated nationwide deficit of $1.7 billion in 1975.[2] However, as concern grows over such issues as the energy shortage, air pollution, and highway construction, public transportation is increasingly viewed as an answer to these problems. In fact, for the first time in decades, new rail transit systems are being designed and built, and innovative uses for buses are being studied and implemented.

The Federal government is also taking a strong stand in favor of balanced transportation. In the 1960s, many local transit systems were rescued uder the Urban Mass Transit Act. In addition, the changes made in the Federal Highway Act of 1973 gave urban communities the option of trading highway dollars for transit dollars and put public transportation projects on an equal footing with highway programs.

Since more emphasis is being put on local decision making about local systems, it is important that the consumer be aware of the new developments in this area and the potential it has for him or her. This involves consideration of modal qualities, relevant trip purposes, and trip planning. Further education about public transportation can contribute to this process by enabling the consumer to make responsible decisions about how to use public transportation; participating in transportation planning; advocating public transportation legislation; and seeking redress of grievances.

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[1] Curriculum Unit 16, Special Mobility Problems and Curriculum Unit 20, Urban Transportation Problems, also address public transportation but from a different focus and with a different emphasis. You may want to consult these units for additional activity suggestions.

[2] American Public Transit Association, Washington, D.C.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
13. Public Transportation	Students demonstrate knowledge, skills, and attitudes about public transportation in order to make responsible decisions about 1. identifying and using public transportation (1-3,5-10,13,15,26);* 2. making choices among different transportation modes (2,4,5,7, 14,26,27,29);* 3. promoting the use of public transportation (12,16,17,18,28,30,37);* 4. seeking redress of grievances (19-21,25);* 5. financing public transportation (22-24);* 6. solving problems of the transportation disadvantaged (31-33);* and 7. planning and designing new public transportation systems and expanding or improving already existing systems 11,13,34-36).*	The following activities may be found in one or more of these five transportation consumer education manuals developed by Abt Associates Inc.: TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades K-3; TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades 4-6; RIDE ON! Mini-units and Learning Activities on Public Transportation for Grades 6-9; RIDE ON! Mini-units and Learning Activities on Public Transportation for Grades 9-12; Transportation Consumer Education for Adults: Mini-units and Learning Activities.	
		1. Students make large wall hangings of public transportation vehicles. (Elementary)	Art
		2. Students listen to a story about a town's transportation problems. (Elementary)	Discussion
		3. Students interview parents, neighbors, and relatives to determine the use of different modes of transportation. (Elementary)	Interview
		4. Students assess their travel needs and their use of and ability to use public transportation. (Elementary/secondary)	Discussion
		5. Students play a game in which they arrange community trips using the most appropriate mode of transportation. (Elementary)	Game
		6. Students perform skits demonstrating the procedures for proper and safe behavior while using public transportation. (Elementary)	Skits

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*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
13. Public Transportation (contd.)		7. Students become familiar with local public transportation by working with route maps. (Elementary)	Game
		8. Students compile a community "Places to Go--Things to Do" booklet. (Elementary)	Writing
		9. Students take a ride on a public transportation vehicle. (Elementary)	Field Trip
		10. Students discuss emergencies they have experienced involving personal safety and relate those emergencies to travel emergencies on public transportation vehicles. (Elementary)	Discussion
		11. Students plan for a public transportation system for their community. (Elementary/secondary)	Research
		12. Students develop advertising campaigns for public transportation. (Elementary)	Writing/art
		13. Students role-play scenarios involving operators of public transportation vehicles. (Elementary)	Role-play
		14. Students discuss the advantages and disadvantages of using public transportation in general and in their community in particular. (Secondary/adult)	Discussion
		15. Students examine their own attitudes toward decreasing their use of automobiles and increasing their use of public transportation. (Secondary/adult)	Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
13. Public Transportation (contd.)		16. Students discuss whether, when, and how to encourage other people to use public transportation. (Secondary/adult)	Discussion
		17. The class discusses actions being taken by the Federal government to improve and promote public transportation in America. (Secondary/adult)	Discussion
		18. Students plan "advertising campaigns" designed to promote public transportation throughout the nation. (Secondary)	Writing
		19. Students discuss seeking redress of grievances against unsatisfactory public transportation service. (Secondary/adult)	Discussion
		20. Students practice writing letters of complaint about consumer grievances they have regarding unsatisfactory public transportation service. (Secondary)	Writing
		21. Students role-play and then discuss situations involving vandalism against public transportation vehicles.	Role-play
		22. Students investigate and then discuss how transit authorities and government agencies do and should allocate their funds. (Secondary/adult)	Research
		23. Students debate the cost-benefits of different forms of public transportation and of improvements in public transportation service. (Secondary/adult)	Debate

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
13. Public Transportation (contd.)		24. Students discuss the extent to which public transportation should be subsidized by the government. (Secondary/adult)	Discussion
		25. Students research the politics of citizen action to promote public transportation. (Secondary/adult)	Research
		26. Students research the effects of automobiles on the environment and compare these effects in their own and other communities with the effects of public transportation vehicles. (Secondary/adult)	Research
		27. Students discuss America's alleged love affair with the automobile and how this may have affected patronage of public transportation. (Secondary/adult)	Discussion
		28. Students role-play and then discuss methods by which to persuade other people to use or increase their use of public transportation. (Secondary/adult)	Role-play
		29. Students discuss the advantages and disadvantages of using public transportation in general and in their community in particular. (Secondary)	Discussion
		30. Students discuss whether the government should promote the use of public transportation and, if so, how. (Secondary/adult)	Discussion
		31. Students research why public transportation service in many communities is inadequate. (Secondary)	Research

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
13. Public Transportation (contd.)		32. Students discuss the problems of rural transportation and ways of solving them. (Secondary/adult)	Discussion
		33. Students identify the ways in which public transportation meets and fails to meet the needs of physically and socioeconomically disadvantaged groups. (Secondary/adult)	Discussion
		34. Students plan the construction of a new or expanded public transportation facility or system, weighing its environmental effects. (Secondary/adult)	Research
		35. Students interview public transportation system employees and administrators to learn what constraints may make it difficult to improve service. (Secondary)	Interview
		36. Students poll friends, neighbors, and strangers to learn what public transportation system and improvements the community needs. (Secondary)	Poll
		37. Students research methods of citizen participation designed to promote public transportation. (Secondary/adult)	Research

BIBLIOGRAPHY

a) Teacher Materials

***197. THE VOICE OF THE TRANSPORTATION CONSUMER: EXECUTIVE SUMMARY, 1975. Grades 10-adult. 108 pages. $5.25.

Pamphlet /report

This is a comprehensive and forthright report to the Secretary of Transportation on nationwide consumer public hearings conducted by the (Department of Transportation) Office of Consumer Affairs during 1971-1974. Presents in summary but highly readable fashion the results of 54 hearings conducted in 34 cities and towns. The report analyzes 1,280 complete questionnaires received at the hearings. The report covers all aspects of transportation, but indirectly deals with public transportation. A full report of the hearing results is also available and runs to 656 pages.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
Catalog No. PB 241764

*198. SOCIAL AND ECONOMIC EFFECTS OF HIGHWAYS, 1974. Grades 10-adult. 180 pages. Free.

Report

A report of the positive and negative effects that modern highways have on individuals, communities, and regions. Report is somewhat technical and requires close attention.

U.S. Department of Transportation
Federal Highway Administration
Office of Program and Policy Planning
400 Seventh and D Streets, S.W.
Washington, D.C. 20590

**199. CARPOOLING CASE STUDIES, 1974. Grades 9-adult. 31 pages. Free.

Report

Two articles that document successful carpool-matching experiments, including maps and citizen questionnaires.

U.S. Department of Transportation
Federal Highway Administration
Urban Planning Division
400 Seventh and D Streets, S.W.
Washington, D.C. 20590

**200. BUSPOOLS, 1974. Grades 9-adult. 18 pages. Free.

Report — Description of buspools, with a discussion of the criteria for buspool opportunities.

U.S. Department of Transportation
Federal Highway Administration
Urban Planning Division
400 Seventh and D Streets, S.W.
Washington, D.C. 20590

**201. TRANSPORTATION FOR THE ELDERLY: THE STATE OF THE ART, 1975. Grades 10-adult. 162 pages. Free.

Report — Somewhat technical but highly informative discussion of the nature of and possible solutions for transportation problems faced by the elderly.

U.S. Department of Health, Education and Welfare
Office of Human Development
Administration on Aging
Washington, D.C.

**202. TRANSPORTATION AND AGING: SELECTED ISSUES, 1972. Grades 10-adult. 208 pages. $1.75.

Report — Varied and informative selection of articles on various aspects of transportation and the elderly, including discussion of reduced-fare programs, mass transit and retired people, and several demonstration programs designed to improve transit services for the elderly. Developed by the U.S. Department of Health, Education and Welfare.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock No. 1762-0042

*203. THE TRANSPORTATION NEEDS OF THE RURAL POOR, 1969. Grades 9-adult. 244 pages. $6.00. Prepared by the U.S. Department of Commerce.

Report — Results of a study of rural transportation in one rural area, with a section on the study's application to other rural areas. Study includes a comparison of the free bus system with alternative transportation systems for the poor. Good overview in second chapter on rural poverty as it relates to transportation in general.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
Document No. PB 185-253

*204. TRANSPORTATION AND THE RURAL COMMUNITY, 1974. Grades 9-adult. 19 pages. Prepared by the U.S. Department of Transportation.

Pamphlet/report Summary of conference on rural transportation. Report treats present state of rural transit, the relationship between transportation and rural development, and the potential for new technology as a solution to rural problems.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151

**205. THE 3M COMMUTE-A-VAN PROGRAM: STATUS REPORT, 1974. Grades 9-adult. 50 pages. Free.

Report Description of a system whereby the 3M Company furnishes a 12-passenger van to an employee willing to take at least eight other employees to and from work.

U.S. Department of Transportation
Federal Highway Administration
400 Seventh and D Streets, S.W.
Washington, D.C. 20590

***206. IMPROVING URBAN MOBILITY, 1975. Grades 10-adult. 30 pages. Free.

Pamphlet Highly creative discussion of ways in which bus service can be improved by manipulating the traffic environment and bus system. Discussion focuses on special bus lanes and streets, improving traffic management, improved scheduling and routing, improved fare collection methods, and alternate vehicle types.

Federal Highway Administration
Urban Planning Division
Transit and Traffic Engineering Branch
Washington, D.C. 20590

**207. ACCESS FOR ALL: TRANSPORTATION AND URBAN GROWTH, 1975. Grades 9-adult. 176 pages. $2.45, paperback.

Book Stimulating discussion of how transportation availability influences residential, work, and recreation patterns. Thesis is that the introduction of the automobile has resulted in unequal access to transportation and discouraged contact among different socioeconomic groups in society. Book traces the history of public transportation in America. Full of revealing insights into the nature of public transportation, but some readers may find some of the reading heavy and the illustrations (e.g., Boston) parochial.

Penguin Books
7110 Ambassador Road
Baltimore, Maryland 21207
(or local bookstore)

**208. THE ACCESSIBLE CITY, by Wilfred Owen, 1972. Grades 9-adult. 150 pages. $2.95.

Book Discussion of big-city transportation problems, their nature and how they can be solved. Book provides considerable basic factual information on the worldwide and national urban transportation crisis. Main thesis is that transportation must be planned in the context of more important objectives, such as the provision of housing, health, employment, and recreation opportunities.

The Brookings Institution
1775 Massachusetts Avenue
Washington, D.C. 20036
(or local bookstore)

***209. TRANSPO TOPICS FOR CONSUMERS, n.d. Grades 9-adult. 8 pages. Free.

Periodical Very useful newsletter on a variety of urban transportation facilities. Discusses such topics as legislation, local transportation programs, new publications, and teaching materials.

Department of Transportation
Office of the Secretary
Office of Consumer Affairs
400 Seventh Street, S.W.
Washington, D.C. 20590

***210. RITES OF WAY: THE POLITICS OF TRANSPORTATION IN BOSTON AND THE U.S. CITY, by Alan Lupo, Frank Colcord, and Edmund P. Fowler, 1971. Grades 10-adult. 294 pages. $3.95, paperback.

Book Detailed account of how community opposition in metropolitan Boston forced the state and local governments and quasi-independent commissions to abandon plans to construct freeways in and around the city. Book also discusses who makes transportation decisions in major U.S. cities, the politics of such decisions, and the elements that should be included in comprehensive regional transportation planning. While a unique and fascinating document of one community's struggle and strategies to be heard, some readers may find the level of detail wearing.

Little, Brown and Company
34 Beacon Street
Boston, Massachusetts

211. THE URBAN TRANSPORTATION PROBLEM, by J. R. Meyer et al., 1966. Grades 9-adult. 427 pages. $4.50, paperback.

Textbook

In-depth survey of urban transportation issues. A standard treatment of such issues as recent trends in urban location, highway financing, linehaul systems, and costing procedures. Although generally accessible to the lay reader, several sections require a knowledge of statistics to be fully understood.

Harvard University Press
79 Garden Street
Cambridge, Massachusetts 02138

***212. NEIGHBORHOOD COMMUNITY PLANNING AND URBAN ISSUES. Grades 3-7. Kit. $20.00.

Game

Students develop planning skills and learn about community issues as they compete to build the ideal residential community. The object of the game is to achieve the ideal balance of accessibility from residential units to jobs and other public facilities using public transportation links.

Games Central
55 Wheeler Street
Cambridge, Massachusetts 02138

***213. TRANSPORTATION, Grades 3-7. Kit. $24.00.

Game

This game promotes both basic math skills and an understanding of the decision-making process inherent in selecting a mode of transportation. Travelers must wrestle with time and budget limitations as they shop comparatively for different travel modes. Although the game deals with forms of travel other than public transportation, the skills learned are transferable.

Games Central
55 Wheeler Street
Cambridge, Massachusetts 02138

**214. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide

Unique curriculum guide that covers all major areas of urban transportation and is one of the very few guides that treats rapid transit issues. Some of the "Suggested Pupil and Teacher Activities" are interesting, but they are not detailed. Guide is organized by understandings, activities, and sources. Good photographs and drawings are provided.

The University of the State of New York
State Education Department
Bureau of Secondary Curriculum Department
Albany, New York 12224

**215. MATHEMATICS FOR DAILY LIVING, by Harry Lewis, 1970. Grades 9-12. 600 pages (100 on transportation). $6.95 ($5.22 for schools).

Textbook

Presentation of math problems in context of consumer issues that include transportation. Of particular value as an interdisciplinary approach. Deals with math problems as related to time tables, travel, costs, insurance, and use of maps.

McCormick-Mathers Publishing Co.
300 Pike Street
Cincinnati, Ohio 45202

216. NATIONAL SAFETY COUNCIL CATALOGUE, 1973. Grades K-adult. 85 pages. Free.

Catalogue

Comprehensive catalogue on all aspects of safety, including bicycles, buses, driver education, motorcycles, passengers, traffic safety, trucks, and pedestrians. Included are listings of booklets, manuals, films and filmstrips, and posters.

National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

b) Student Materials

***217. TRANSPO TOPICS FOR CONSUMERS, n.d. Adults. 8 pages. Free.

Periodical

Very useful newsletter on a variety of urban transportation developments. Discusses such topics as legislation, local transportation programs, new publications, and teaching materials.

Department of Transportation
Office of the Secretary
Office of Consumer Affairs
400 Seventh Street, S.W.
Washington, D.C. 20590

*218. THE URBAN TRANSPORTATION PROBLEM, by J. R. Meyer et al., 1966. Adults. 427 pages. $4.50, paperback.

Textbook

In-depth survey of urban transportation issues. A standard treatment of such issues as recent trends in urban location, highway financing, line-haul systems, and costing procedures. Although generally accessible to the lay reader, several sections require a knowledge of statistics to be fully understood.

Harvard University Press
79 Garden Street
Cambridge, Massachusetts

**219. THE ACCESSIBLE CITY, by Wilfred Owen, 1972. Adult. 150 pages. $2.95.

Book Discussion of big-city transportation problems, their nature, and how they can be solved. Book provides considerable basic factual information on the worldwide and national urban transportation crisis. Main thesis is that transportation must be planned in the context of more important objectives, such as the provision of housing, health, employment, and recreation opportunities.

The Brookings Institution
1775 Massachusetts Avenue
Washington, D.C. 20036

***220. RITES OF WAY: THE POLITICS OF TRANSPORTATION IN BOSTON AND THE U.S. CITY, by Alan Lupo, Frank Colcord, and Edmund P. Fowler, 1971. Adult. 294 pages. $3.95, paperback.

Book Detailed account of how community opposition in metropolitan Boston forced the state and local governments and quasi-independent commissions to abandon plans to construct freeways in and around the city. Book also discusses who makes transportation decisions in major U.S. cities, the politics of such decisions, and the elements that should be included in comprehensive regional transportation planning. While a unique and fascinating document of one community's struggle and strategies to be heard, some readers may find the level of detail wearing.

Little, Brown and Company
34 Beacon Street
Boston, Massachusetts

221. TRANSPORTATION NOISE AND ITS CONTROL, 1972. Grades 10-adult. 27 pages. 70¢.

Pamphlet Informative, not too technical, discussion of the nature of noise pollution, the decibel unit of measurement, the extent of noise caused by cars, trucks, planes, and rapid transit, and possibilities for reducing or eliminating transportation noises.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock No. 50000-0057

**222. TRANSPORTATION NOISE POLLUTION: CONTROL AND ABATEMENT, 1970. Grades 10-adult. 190 pages. $6.00.

Pamphlet Very informative, in places technical, discussion of the causes of transportation noise pollution and what can be done about them. Excellent charts, graphs, and cartoons.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
Stock No. N71-15557

***223. GETTING AROUND: PEOPLE AND THE CITY, 1974. Grades 9-adult. 48 pages. $1.29.

Pamphlet Informative, thought-provoking case studies and discussions on urban transportation, including commuting, rapid transit, citizen action, dial-a-bus, mass transit, banning cars, and the Bay Area Rapid Transit (BART) in San Francisco. Discussion questions are provided. Well illustrated; photographs.

Scott, Foresman and Company
1900 Eastlake Street
Glenview, Illinois 60025

**224. HEALTH EFFECTS OF ENVIRONMENTAL POLLUTION, 1973. Grades 9-adult. 20 pages. 30¢. Prepared by Environmental Protection Agency.

Pamphlet Highly useful overview of the effects of air, water, and noise pollution on human health.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

**225. AUTOMOTIVE FUELS AND AIR POLLUTION, 1971. Grades 9-adult. 32 pages. 40¢. Prepared by U.S. Department of Commerce.

Pamphlet Detailed account, for the layman, of automobile pollutants, their effects, and what can be done to eliminate or reduce them.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

***226. A CITIZEN'S GUIDE TO CLEAN AIR, 1972. Grades 9-adult. 95 pages. Free.

Pamphlet An extremely useful, detailed account of the clean air laws and how citizens can advocate and plan for the control of air pollution. One chapter deals with auto emission controls, another with the citizen's role in policy making.

The Conservation Foundation
1717 Massachusetts Avenue, N.W.
Washington, D.C. 20036

**227. DON'T LEAVE IT ALL TO THE EXPERTS: THE CITIZEN'S ROLE IN ENVIRONMENTAL DECISION-MAKING, 1972. Grades 10-adult. 9 pages. Free.

Pamphlet Identification of methods by which citizens can protect the environment, including becoming informed, knowing the law, lobbying, fighting for funds, and knowing one's rights.

Office of Public Affairs
U.S. Environmental Protection Agency
Waterside Mall
Washington, D.C. 20460

*228. CITIZEN ACTION CAN GET RESULTS, 1972. Grades 9-adult. 8 pages. 20¢. Prepared by Environmental Protection Agency.

Pamphlet Three somewhat superficial case studies of how community political action successfully reduced environmental pollution. One case study on air pollution indirectly involves auto pollution. However, the case studies are useful as examples of citizen action, even though they are not directly related to transportation's environmental effects.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock No. 5500-0070

229. TRANSPORTATION CONSUMER'S GUIDE TO PROGRAMS AND SERVICES OF THE UNITED STATES DEPARTMENT OF TRANSPORTATION, 1974. Grades 8-adult. 36 pages. Free.

Pamphlet Description of the structure and functions of the several agencies within the Department of Transportation, along with a list of consumer publications each agency has available.

Department of Transportation
Office of the Secretary
400 Seventh Street, S.W.
Washington, D.C. 20590

*230. RETHINKING YOUR AUTOMOBILE, 1973. Grades 9-adult. 6 pages. Free.

Flyer Brief discussion of consumer's role in reducing use of cars in view of the energy shortage.

Office of Public Affairs
U.S. Environmental Protection Agency
Waterside Mall
Washington, D.C. 20460

c) Audiovisual Materials

231. PUBLIC TRANSPORTATION EDUCATION PROGRAM, 1976. Grades 5-8. Available at the cost of reproduction.

Film-strip/guide Filmstrips and 35-mm slide presentations with taped narratives on the history of public transportation; environmental and energy conservation concerns as they relate to public transportation; and bus safety and vandalism reduction. Also includes instructor's manual, reproducible student workbook, and bus games.

Caltrans Division of Mass Transportation
Post Office Box 1499
Sacramento, California 95807

14. RECREATIONAL VEHICLES

For the purposes of this Guide, recreational vehicles have been defined to include those vehicles, other than bicycles, used primarily for enjoyment rather than for transportation. The major vehicle in this category is the boat, but other important recreational vehicles include campers, trailers, snowmobiles, dune buggies, and modified and homebuilt vehicles. However, both airplanes and cars (e.g., drag racing, touring) are also used for recreational purposes.

Before the energy shortage occurred, the recreational vehicle industry was subject only to the usual fluctuations characteristic in the market. Over 7.5 million motor homes, truck campers, and travel and camping trailers alone were on the road in 1975.[1] Nearly 3 billion dollars were spent on boating equipment in 1975 for an estimated 7.3 million registered boats in the country, not counting rowboats or canoes.[2] This expansion of recreational vehicles has created new pressures for controls on vehicle design, usage, and user training from safety experts and environmentalists.

Particular concern has been expressed for the safety of users. Although the exact number of accidents involving motor recreation vehicles is difficult to determine, there were 1,466 fatalities in 1975 associated with recreational boating alone.[2] The U.S. Coast Guard and Auxiliary have responded to the need for boating safety with both course offerings and public information pamphlets and flyers.

There are also serious safety problems with other recreational vehicles, including snowmobiles, dune buggies, and homebuilt vehicles. Ignorance, inexperience, and being carried away by the excitment these vehicles provide have combined to cause a great number of injuries and deaths for users of such vehicles.

Finally, the energy shortage has introduced an entirely new element into the purchase and use of recreational vehicles. Gasoline

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1. Recreational Vehicle Industry Association, Chantilly, Virginia.

2. U.S. Coast Guard, Department of Transportation, Washington, D.C.

shortages and increased gasoline prices have combined to make some potential purchasers reluctant to buy and some current owners reluctant to use recreational vehicles. In the boating industry, attention has been focused on how to use motored boats in ways that conserve fuel, such as reducing speed, matching engines to boat size, using the right propeller, and having periodic tune-ups.

Education can do much to help people to purchase recreational vehicles that are economical and safe. Education can also help users to drive safely and practice operating techniques that minimize the use of energy resources and personal expense.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
14. Recreational Vehicles	Students demonstrate knowledge, skills, and attitudes about vehicles in order to make responsible decisions about 1. purchasing recreational vehicles (7);* 2. maintaining recreational vehicles (4,8);* 3. riding safely (1,2,3, 5,6);* 4. seeking redress of grievances (9);* and 5. emphasizing energy efficiency in purchasing and using recreational vehicles (10,11).*	The first five activities listed below may be found in one or more of these five transportation consumer education manuals developed by Abt Associates Inc.: TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades K-3; TRAVEL-ON! Mini-units and Learning Activities on Transportation for Grades 4-6; Transportation Consumer Education for Adults: Mini-units and Learning Activities; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 6-9; GETTING THERE! Mini-units and Learning Activities on Transportation Safety for Grades 9-12.	
		1. Students collect, look at, and handle various safety items that a boat is required to have and learn how to avoid common, unsafe boating practices. (Elementary/secondary)	Discussion
		2. Students role-play a family involved in a boating incident. (Elementary)	Role-play
		3. Students read a story about peer pressure and boating safety. The story is interrupted in the middle and the students supply the ending themselves according to what they perceive is likely to happen. (Secondary)	Writing
		4. Students and teacher discuss why fueling a boat is hazardous and what steps need to be taken to make it a safe procedure. (Secondary/adult)	Discussion
		5. Students examine official (Coast Guard) tables on boating accidents and interpret them, making use of graphs, charts, and written explanations. (Secondary/adult)	Discussion

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
14. Recreational Vehicles (contd.)		6. Students research the safety hazards of recreational vehicles, such as snowmobiles and boats, and discuss methods by which they can be avoided. (Secondary/adult)	Research
		7. Students interview the salespeople and users of potentially dangerous recreational vehicles, such as snowmobiles, dune buggies, and minibikes, about what the temptations are to use such vehicles dangerously and how such temptations can be overcome. Students can also research the extent to which manufacturers have or could minimize improper use of these vehicles by how they construct them. (Secondary/adult)	Interview
		8. Students research how to store recreational vehicles during the seasons they are not used. (Secondary/adult)	Research
		9. Students interview consumer protection agency officials about what they should do when seeking redress of grievances. (Secondary/adult)	Interview
		10. Students research the energy efficiency of various recreational vehicles (e.g., motorboats, sailboats, minibikes, ten-speed bikes, snowmobiles, dune buggies) and the recreational benefits each provides and compare results, determining which vehicle is best to purchase and use in terms of energy savings and leisure-time benefits. (Secondary/adult)	Research
		11. Students interview motorboat owners and salespeople to learn how to use motored boats in ways that conserve fuel. (Secondary/adult)	Interview

BIBLIOGRAPHY

a) Teacher Materials

*232. YOUTH ON WHEELS: MOTOR FUN AND SAFETY PROJECTS, 1960. Grades 11-12. 27 pages. $1.50.

Guide — Series of suggested projects for boys relating to gasoline, driving skill, car clubs, and auto mechanics. Projects are interesting, such as driving over obstacle courses, seeing how far a car will travel on a particular amount of gasoline, and forming a car club. Resource lists are provided but are somewhat out of date.

Boys' Club of America
771 First Avenue
New York, New York

233. PROJECT "SCHOOLFLIGHT," n.d. Grades 10-adult. 15 pages. Free.

Pamphlet — Descriptions of how high school classes can build their own small plane and then sell it. Not relevant to consumer education except insofar as students learn about consumer aspects of aviation tangentially as they build the plane--e.g., safety, comfort, prices.

PROJECT "SCHOOLFLIGHT"
EEA Air Museum Foundation
Post Office Box 229
Hales Corners, Wisconsin 53130

*234. BETTER BOATING: A GUIDE TO SAFETY AFLOAT, 1973. Grades 9-adult. 79 pages. 65¢.

Guide — Comprehensive guide on primarily motorboating, covering types of boats, equipment, navigation, safety, and emergency measures. Well illustrated but completely factual approach. Suggested class activities are not detailed. Student booklets available, too.

Better Boating
Outdoor Empire Publishing, Inc.
511 Eastlake Avenue East
Seattle, Washington 98109

b) Student Materials

*235. PERSONAL FLOTATION DEVICES: REQUIREMENTS FOR RECREATIONAL BOATS, n.d. Adult. 3 pages. Free.

Flyer — Brief description of various types of what used to be called life preservers and are now called personal flotation devices (PFDs). Useful for deciding which one(s) to purchase.

Department of Transportation
United States Coast Guard
(G-BBE-1)
Washington, D.C. 20590

236. THIS IS THE SEAL OF SAFETY (Aux-204). Free.

Pamphlet — Description of the U.S. Coast Guard Auxiliary. Contains both Auxiliary and Federal equipment standards.

Department of Transportation
United States Coast Guard
(G-BAU)
Washington, D.C. 20590

**237. THE SKIPPER'S COURSE (CG-433), 1972. Grades 10-adult. 85 pages. $1.50.

Pamphlet — Self-instructional booklet on all aspects of boating safety and operation. Provides information and then self-administering questions ("quick quiz") after each section to test learning. Many of the issues covered deal with large pleasure craft, but problems that would affect rowboats, sailboats, and canoes are also dealt with. Includes 11 cartoons. Developed by U.S. Coast Guard, Department of Transportation.

The Skipper's Course
Consumer Product Information Center
Pueblo, Colorado 81009

*238. (ALMOST) EVERYTHING YOU EVER WANTED TO KNOW ABOUT BOATING... (CG-428), 1972. Grades 10-adult. 24 pages. Free.

Pamphlet — Humorous treatment of basic boating operation and safety, including limericks, witty sayings, cartoons, and quiz questions.

Department of Transportation
United States Coast Guard
(G-BBE-2)
Washington, D.C. 20590

*239. BASIC CANOEING, 1963. Grades 9-adult. 63 pages. 50¢.

Pamphlet Useful discussion for beginners that deals with the evolution of the canoe, selecting a canoe, accessories, carrying and launching, boarding and debarking, paddling strokes, safety, care and repair, car-top transportation, and artificial respiration.

American Red Cross
17th and D Streets, N.W.
Washington, D.C. 20006
(or local Red Cross chapter)

*240. CANOEING TEXTBOOK, 1956. Grades 12-adult. 445 pages. $1.75.

Textbook Comprehensive treatment of all areas of canoeing, including accessories, launching and boarding, paddling, rescue, racing, trips, and repairs.

American Red Cross
17th and D Streets, N.W.
Washington, D.C. 20006
(or local chapter)

*241. BASIC SAILING, 1966. Grades 9-adult. 122 pages. 75¢.

Pamphlet Useful discussion that treats the fundamentals of sailing small craft. Topics discussed include sailboat designs, types, equipment, sails, basic racing rules, and rough weather sailing. Illustrated.

American Red Cross
17th and D Streets, N.W.
Washington, D.C. 20006
(or local chapter)

*242. BASIC ROWING, 1964. Grades 9-adult. 80 pages. 50¢.

Pamphlet Booklet designed as a reference source for the American Red Cross rowing courses. Well illustrated, it gives basic information on rowing craft, types, materials, equipment, boarding and debarking, rowing, knot tying and use of lines, anchoring, towing, safety and rescue, boat care, and artificial respiration.

American Red Cross
17th and D Streets, N.W.
Washington, D.C. 20006
(or local chapter)

*243. BASIC OUTBOARD BOATING, 1964. Grades 11-adult. 98 pages. 75¢.

Pamphlet Well illustrated and useful discussion that deals with definition and classification of motorboats, boat selection, outboard rig, equipment requirements, rules of the road, the outboard motor, troubleshooting, fueling, starting, knot tying and use of lines, anchoring, piloting and navigational aids, safety and rescue, accident reporting, weather, and artificial respiration.

American Red Cross
17th and D Streets, N.W.
Washington, D.C. 20006
(or local chapter)

244. PRINCIPLES OF SAFE SAILING, 1971. Grades 11-adult. 123 pages. $3.95, paperback.

Book Large (8½" x 11") volume provides detailed information on such topics as how to sail, weather problems, rough water, maintenance, and purchasing sails. Well illustrated.

Motor Boating and Sailing Books
The Hearst Corporation
959 Eighth Avenue
New York, New York 10019

245. YACHT ADMEASUREMENT AND DOCUMENTATION (CG-177), 1972. Adult. 8 pages. Free.

Pamphlet Brief discussion for owners of yachts or boats of five net tons or more used for recreation on whether and how to have it documented as a yacht by the U.S. Coast Guard.

Department of Transportation
United States Coast Guard
(G-BBE-1)
Washington, D.C. 20590

*246. FEDERAL REQUIREMENTS FOR RECREATIONAL BOATS (CG-290), 1973. Adult. 14 pages. Free.

Pamphlet Description of Federal requirements that must be met by owners of motorboats, including registration, reporting accidents, and minimum safety equipment.

Department of Transportation
United States Coast Guard (G-BBE-1)
Washington, D.C. 20590

*247. MARINE COMMUNICATIONS FOR THE BOATING PUBLIC (CG-423), 1972. Grades 11-adult.

Pamphlet Detailed information of what someone aboard a vessel in trouble or observing another vessel in difficulty should radio. Contains a tear-out Marine Emergency and Distress Information Sheet.

Department of Transportation
U.S. Coast Guard (G-BBE-1)
Washington, D.C. 20590

248. PUBLICATIONS FOR SAFE NAVIGATION, 1973. Grades 11-adult. 5 pages. Free.

Pamphlet Description of nautical charts and chart-related publications, including prices and ordering sources.

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Survey
6501 Lafayette Avenue
Riverdale, Maryland 20840

*249. MARINE WEATHER SERVICES, 1972. Grades 11-adult. 5 pages. Free. Prepared by the National Weather Service.

Pamphlet Description of sources for weather forecasts and warnings and marine weather services charts. Also included are weather display signals and weather rules for safe boating.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

*250. EMERGENCY REPAIRS AFLOAT (CG-151), 1973. Grades 11-adult. 11 pages. Free.

Pamphlet A boatman's pocket guide to engine troubleshooting, emergency repairs, how to stay afloat, and recommended basic hand tools and spare parts.

Department of Transportation
United States Coast Guard (G-BBE-1)
Washington, D.C. 20590

251. COAST GUARD AIDS TO NAVIGATION (CG-193), 1972. Grades 11-adult. 27 pages.

Pamphlet Detailed description of basic principles underlying the marking of coasts and waterways with lights, fog signals, radio beacons, and buoys. Well illustrated.

Department of Transportation
United States Coast Guard (G-CAS-2)
Washington, D.C. 20590

***252. COAST GUARD OFFICIAL RECREATIONAL BOATING GUIDE, 1971. Grades 11-adult. 96 pages. 60¢.

Pamphlet Excellent, comprehensive guide to boating equipment, operating responsibilities, navigational aids, safety, and emergency procedures. Lists of Coast Guard District Offices and government publications are provided. Well illustrated. Primarily for the motorboater.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock Number 5012-0056

253. FORMING AND OPERATING A FLYING CLUB, 1969. Adults. 60 pages. 35¢. Prepared by the Federal Aviation Administration.

Pamphlet Instructions on how to form and operate a flying club. Useful for adult groups that are interested in forming a flying club or have formed one and need to know how to operate it better.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

c) Audiovisual Materials

254. SEARCH AND RESCUE: PLEASURE CRAFT, 1969. Grades 11-adult. 26 minutes, 16 mm, color. $88 (purchase); free rental.

Film Movie that portrays search and rescue aspects of boating safety. Probably too technical or narrowly devoted to expensive pleasure craft to be useful in many classes. Defines the proper procedure to be followed by distressed vessels in obtaining search and rescue assistance.

Rental: Local Coast Guard District Office
Purchase: National Audiovisual Center (GSA)
Washington, D.C. 20409

255. SUDDENLY AND WITHOUT WARNING, 1971. Grades 7-adult. Six minutes, 16 mm, color. $25 (purchase); free rental.

Film Movie on safety hazards of falling overboard. Probably the most useful aspect of boating safety in terms of the number of people for whom the problem may arise. Graphic action scenes depict the most common types of falls overboard from pleasure boats. Shows buoyant life-saving devices, their uses, and how to wear them properly.

Rental: Local Coast Guard District Office
Purchase: National Audiovisual Center (GSA)
Washington, D.C. 20409

256. BOATING SAFETY - B: COURTESY AFLOAT, 1962. Grades 11-adult. Sixteen minutes, 16 mm, color. $63 (purchase); free rental.

Film Movie on safety for small boat operators. Film is designed for all boatmen, but particularly for those who operate less than 26-foot boats. Proper fueling, use of signalling devices, courteous and safe operation in swimming areas, and awareness of weather are discussed.

Rental: Local Coast Guard District Office
Purchase: National Audiovisual Center (GSA)
Washington, D.C. 20409

257. THE SOS COURSE: AN INTRODUCTION TO SAFE BOATING. Grades 7-adult. 69 pages of text, 7 pages of instructions, 198 35-mm color slides, $28.50 (purchase).

Slides A slide presentation on many aspects of boating safety. Approximately two hours in length. Designed to be used as a teaching device by an individual with little or no boating safety experience by employing the slide narrative contained in the SOS Course.

National Audiovisual Center (GSA)
Washington, D.C. 20409

258. IT'S NOT WHERE YOU'RE GOING - IT'S HOW YOU GET THERE AND BACK. 10 minutes, 16 mm, color. $45.00 (purchase).

Film A film on safe trailering practices developed by the Werthmann Group in cooperation with the U.S. Coast Guard.

For purchase:
Werthmann Group, Inc.
1933 Vernier Road
Grosse Pointe Woods, Michigan 48236

259. WHAT NOW, SKIPPER?, 1973. 20 minutes, 16 mm, color. $78.00 (purchase); free rental.

Film Through a combination of dramatic live demonstrations and colorful graphics, this film depicts the recommended procedures for selecting, maintaining and using marine fire extinguishers. This film is intended for use in familiarizing the boating public with the Federal requirements for fire extinguishers and their proper use on the pleasure boat. Humor and cartoon characters have been included in the film to maintain viewer interest.

Rental: U.S. Coast Guard District Offices
Purchase: The Sales Branch
National Audiovisual Center (GSA)
Washington, D.C. 20409

260. REVOLUTIONARY REGULATIONS, 1973. 18 3/4 minutes, 16 mm, color. $75.75 (purchase); free rental.

Film Explains new personal flotation device regulations that were effective 1 October 1973. Our hero falls asleep while studying the new regulations, and in an entertaining dream sequence, he and his wife wander through a colonial American setting. They meet several interesting characters who explain in detail the four types of PFDs, their performance characteristics, and the carriage requirements for recreational boats.

Rental: U.S. Coast Guard District Offices
Purchase: The Sales Branch
National Audiovisual Center (GSA)
Washington, D.C. 20409

261. FAA FILM CATALOG, 1976. Grades 10-adult. Free.

Catalogue Description of Federal Aviation Administration films and how to order them. Contains very few consumer-oriented movies; most are oriented toward provision of information about aviation history, safety, and weather.

Federal Aviation Administration
Film Library, AC-44.5
P.O. Box 25802
Oklahoma City, Oklahoma 73125

15. SCHOOL BUS SAFETY

In 1972, five school children in Valley Cottage, New York, were killed in an accident involving a school bus and a train. The railroad crossing did not have automatic gates and the driver was moon-lighting from his full-time job as a fireman. Statistics show that over half of all school bus accidents result from driver error. However, in this case, the National Transportation Safety Board also determined that "the body of the bus was inadequate in strength resulting upon impact in its gross disintegration." Safer, better buses are available but they cost an additional $1000 and school boards and bus companies are often not willing to pay the higher price. In an effort to insure greater safety, the Department of Transportation has established new standards requiring safety seats in school buses effective April 1, 1977 and is studying other aspects of bus design.

An education program concentrating on school bus safety could play an important role in changing these grim statistics. It would enable the consumers, both parents and children, to make responsible decisions about riding behavior; advocating driver training; safe vehicle design and legislation; and advocating and planning a safe school bus system.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
15. School Bus Safety	Students demonstrate knowledge, skills, and attitudes about school bus safety in order to make responsible decisions about 1. appropriate riding behavior (1,2);* 2. advocating driver training, safe vehicle design, and legislation (1,3,5, 7);* and 3. advocating and planning a safe school bus system (1,6).*	1. Students discuss safe passenger behavior on school buses in terms of entering, riding, and getting off. (Elementary)	Discussion
		2. Students discuss the place of school bus safety within the context of the entire field of transportation and identify the important interfaces between school bus safety and other transportation concerns and topics. (Secondary/adult)	Discussion
		3. Students design a school bus that they feel might provide more safety, comfort, and usefulness than present buses and present or mail their designs to bus manufacturing companies for evaluation. (Elementary/secondary)	Art
		4. Students research why school buses are not required to have seat belts and, if they conclude that they should, plan a course of action to encourage the responsible authorities to have them installed. Students can also research and discuss whether seat belts would be used and, if not, how their use could be encouraged or required. (Secondary/adult)	Research
		5. Students discuss the characteristics of a good school bus driver, such as prior driving record, experience, and training, and role-play interviewing "candidates" for a vacant bus driver position. (Secondary)	Discussion Role-play
		6. Students research whether school buses are inactive during most of the day and, if so, devise productive things that could be done with them. (Secondary/adult)	Research

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*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
15. School Bus Safety (contd.)		7. Students attend a class for school bus drivers and evaluate their training in terms of the practical realities of driving a school bus. Suggestions for revision of the course can be developed and discussed with school bus driver instructors or school officials. (Secondary/adult)	Independent Study

BIBLIOGRAPHY

a) Teacher Materials

**262. HOW DO YOU GO TO SCHOOL?, 1973. Grades K-6. Teacher's Guide, 180 pages; Visitor's Guide, 15 pages; 14 12" x 16" posters; flip chart; 30 copies of 36-page student pamphlet; tape and filmstrip. $59.50.

Module Comprehensive and creative multimedia package for teaching about what a school bus is, different ways students go to school, courtesy, and primarily, safety. Filmstrip, tape, student booklet, and flip chart all duplicate the same rhyming, somewhat syrupy text and illustrations and may be used to reinforce each other or be used independently, depending on students' reading level and attention span. Unit does not indicate which activities or sections can be taught at which grade level; instead, and more usefully, notations are provided instructing the teacher to discuss the pictures for children who cannot read the text. The visitor's guide duplicates a section already in the teacher's guide on how to conduct a field trip to examine a school bus. The classroom activities section is excellent, including crossword puzzles, assembling a "TV," story completions, unscrambling words, coloring pictures, and a simple board game. Cartoons include ethnic minority members but are very middle class; the bus driver is unrealistically presented as a swell guy. Major drawback of the unit is its moralizing approach: the text and cartoons order students to do and not to do things, and the activities, although creative, have the same tendency.

Kilby Associates
P.O. Box 1113
Pendelton, Oregon 97801

*263. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide Unique curriculum guide that covers all major areas of transportation, including futuristic modes, but few "Suggested Pupil and Teacher Activities" are detailed or exciting. Guide is organized by understandings, activities, and sources. Good photographs and drawings provided.

The University of the State of New York
State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

264. NATIONAL SAFETY COUNCIL CATALOGUE, 1973. Grades K-adult. 85 pages. Free.

Catalogue Comprehensive catalogue on all aspects of safety, including school bus safety. Included are listings of booklets, manuals, films, filmstrips, and posters.

National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

***265. SAFETY INSTRUCTIONAL SYSTEM, n.d. Grades K-6. 285 pages. $2.00.

Guide Excellent guide that covers pedestrian, school bus, bicycle, auto passenger, and school environment pedestrian safety. Activities are plentiful, creative, and detailed. Bibliography is complete. Well illustrated. Guide does fail to discuss or include activities on affective safety issues such as peer pressure, rebellion, search for "kicks," and "it-won't-happen-to-me" thinking.

Maryland State Department of Education
P.O. Box 8717
Friendship International Airport
Baltimore, Maryland

b) Student Materials

266. JOIN THE SCHOOL BUS SAFETY TEAM, 1966. Grades 5-7. 15 pages. 25¢.

Pamphlet Discussion for children on school bus safety. Utility is limited by moralistic and injunctive approach. Topics include the bus driver, being on time, good bus manners, bus safety patrols, and emergencies. Cartoon format with text interspersed is used.

Channing L. Bete Co., Inc.
45 Federal Street
Greenfield Mass. 01301

c) Audiovisual Materials

267. A FILM GUIDE SUPPLEMENT TO A PUPIL TRANSPORTATION MANAGEMENT BIBLIOGRAPHY, 1971. Grades K-6. 39 pages. Free.

Catalogue Bibliography of films on school buses, a small section of which lists nine films on school bus safety designed for elementary school pupils.

Association of School Business Officials
Office of the Director of Research
2424 West Lawrence Avenue
Chicago, Illinois 60625

16. SPECIAL MOBILITY PROBLEMS[1]

Transportation is taken for granted by most Americans; however for many people it is either unavailable, inaccessible, or too expensive. These are the transportation disadvantaged who face travel constraints. Ability to travel is often impeded by age, economic resources, residential location, and physical infirmity. For example, mobility is a critical problem for the millions of people who live in rural areas of low population concentration and low-density development. They are often denied the advantages of adequate education, employment, recreation, and social and health services because the facilities are inaccessible.

The transportation planning and decision-making processes have given little attention to this portion of the population, partly because their problems are not well understood by either planners or the lay community. One way of increasing consideration of the needs of the transportation disadvantaged is to inform the public about the identity of the disadvantaged and the personal and community consequences of their mobility problems. The transportation disadvantaged and other more mobile members of the community should be able to evaluate their transportation needs, identify improvements that should be made, and be able to take action to achieve them.

Education can enable students to make responsible decisions about who has mobility problems; what individual and community actions and facilities will alleviate mobility problems; and how to advocate and plan these actions and facilities.

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[1] This topic is also addressed in Curriculum Unit #13, Public Transportation, but not as extensively or exclusively as in this unit.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
16. Special Mobility Problems	Students demonstrate knowledge, skills, and attitudes about special mobility problems in order to make responsible decisions about 1. who has mobility problems (3-5,8);* 2. individual and community actions to alleviate mobility problems (1-5, 9,10);* and 3. advocating and planning individual and community action to alleviate mobility problems (1,2, 6,7).*	Many of the following activities may be found in one or more of these five transportation consumer education manuals developed by Abt Associates Inc.: TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades K-3; TRAVEL ON! Mini-units and Learning Activities on Transportation for Grades 4-6; RIDE ON! Mini-units and Learning Activities on Public Transportation for Grades 6-9; RIDE ON! Mini-units and Learning Activities on Public Transportation for Grades 9-12; Transportation Consumer Education for Adults: Mini-units and Learning Activities.	
		1. Students discuss special mobility problems within the context of the entire field of transportation and identify the important interfaces between special mobility problems and other transportation concerns and topics. (Secondary/adult)	Discussion
		2. Students discuss ways to make someone with a mobility problem comfortable about getting into, around, and out of the school building and put their conclusions into action. (Elementary/secondary)	Discussion
		3. Students design transportation systems or components of existing transportation systems that will provide better access to individuals with special mobility problems than present facilities do. (Elementary/secondary)	Research

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
16. Special Mobility Problems (contd.)		4. Students lead each other blindfolded through a subway, train station, or bus stop. Experience is discussed in terms of the transportation needs of the blind and whether facilities are available to meet their needs. Students can also use ear plugs to experience the transportation problems of the deaf. (Elementary/secondary)	Role-play
		5. Students interview people with special mobility problems to determine what their special needs are, whether they are being met, and, if not, whether action can be taken to meet their needs. (Secondary/adult)	Interview
		6. Students develop strategies for informing the public about special mobility problems and about how they can be met. (Secondary/adult)	Research
		7. Students locate organizations for the handicapped and engage in volunteer work assisting members with their transportation problems or advocating more accessible public transportation. (Secondary/adult)	Volunteer work
		8. Students discuss the problems of rural transportation and ways of solving them. (Secondary/adult)	Discussion
		9. Students identify the ways in which public transportation meets and fails to meet the needs of physically and socioeconomically disadvantaged groups. (Secondary/adult)	Discussion
		10. Students research why public transportation service in many communities is inadequate. (Secondary/adult)	Research

BIBLIOGRAPHY

a) Teacher Materials

268. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide — Unique curriculum guide that covers all major areas of transportation, including special mobility problems, but few "Suggested Pupil and Teacher Activities" are detailed or exciting. Guide is organized by understandings, activities, and sources. Good photographs and drawings provided.

The University of the State of New York
State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

269. TRAVELER SERVICE STUDY, 1970. Adults. 35 pages. $3.00.

Report — Identification of principal traveler service problems in domestic intercity air, bus, and rail transportation, with special focus on the problems of the so-called transportation deprived. Useful information about service problems in air, bus, and rail transport. Much of what is concluded applies primarily to the needs of the transportation deprived--the young, elderly, poor, ill, and handicapped.

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, Virginia 22151
PB 193-200

270. TRANSPORTATION FOR THE HANDICAPPED: SELECTED REFERENCES, 1969. Grades 12-adult. 26 pages.

Bibliography — Occasionally annotated listing of articles, reports, and books on transportation for the handicapped that appeared between 1960 and 1969. Organized by subject area (e.g., automobiles, special equipment for the blind) with indexes by authors and organizations.

Department of Transportation
Office of Administrative Operations
Library Services Division
400 7th Street, S.W.
Washington, D.C. 20590

*271. THE TRANSPORTATION NEEDS OF THE RURAL POOR, 1969. Adult. 244 pages. $6.00.

Report Results of a study of rural transportation in one rural area, with a section on the study's application to other rural areas. Study includes a comparison of the free bus system with alternative transportation systems for the poor. Good overview in second chapter on rural poverty as it relates to transportation in general.

National Technical Information Service
Springfield, Virginia 22151
Document Number PB 185 253

b) Student Materials

*272. THE URBAN TRANSPORTATION PROBLEM, by J.R. Meyer et al. Adults. 427 pages. $4.50, paperback.

Textbook In-depth survey of urban transportation issues, that includes a chapter on inner city mobility problems. Although generally accessible to the lay reader, several sections require a knowledge of statistics to be fully understood.

Harvard University Press
79 Garden Street
Cambridge, Mass. 02138
(or local bookstore)

273. TRAVELER SERVICE STUDY, 1970. Adults. 35 pages. $3.00.

Report Identification of principal traveler service problems in domestic intercity air, bus, and rail transportation with special problems of the so-called transportation "deprived." Useful for information about service problems in air transport. Much of what is concluded applies primarily to the needs of the transportation deprived--the young, elderly, poor, ill, and handicapped.

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, Virginia 22151
PB 193-200

Audiovisual Materials

No relevant audiovisual materials on special mobility problems have been located.

17. TOURISM AND INTERCITY TRAVEL

More people than ever before in the United States are traveling over greater distances for both recreation and business purposes. A successful trip is more likely if the traveler makes adequate arrangements for transportation and lodging well in advance. The consumer should be able to obtain and use travel information concerning destinations, routes, schedules, and cost. However, there are other aspects of planning a trip that should not be neglected. These include having adequate travel insurance; making sure the car is in good condition; taking any necessary health precautions; and protecting the home from possible burglary.

In addition to traveling himself, the consumer may also be interested in how tourism affects his community. There are several areas of the country whose natural vistas of commercial recreational developments attract numerous visitors. Unfortunately, an influx of tourists can sometimes create an unpleasant environment for local residents.

Education can help the consumer make decisions about when and where to take a trip; how to plan and take a trip; how to seek redress of grievances connected with travel; and what the role of tourism in his community should be.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
17. Tourism and Intercity Travel	Students demonstrate knowledge, skills, and attitudes about tourism and intercity travel in order to make responsible decisions about 1. when and where to take a trip (1-3,6,8,13,15);* 2. how to plan a trip (1-9,12-15);* 3. how to take a trip (1,6,7,13,14);* 4. seeking redress of grievances (10);* and 5. the role of tourism in the community (1,11,15).*	1. Students discuss tourism and intercity travel within the context of the entire field of transportation and identify the important interfaces between intercity travel and other transportation concerns and topics. (Secondary/adult)	Discussion
		2. Students collect advertisements for various modes of transportation and identify the needs appealed to in each. Students then discuss what information is given and should be given about the criteria for selecting each particular mode--e.g., safety, convenience, power, style, speed. (Elementary)	Discussion
		3. Students discuss the implications of songs which treat various modes of travel, e.g., "Rock Island Line," "The Trolley Song," "In My Merry Oldsmobile," "Bus Stop," "Fly Me to the Moon." Analysis can focus on purposes for which individuals are using the transportation facilities and the advantages and disadvantages of using them. Students can also create their own songs or poems. (Elementary) (39)**	Discussion
		4. Students perform math problems about airplane speed, altitude, and seating capacity. (Elementary)	

**Number refers to Bibliography entry that provided idea for the activity.

*Numbers refer to sample activities which address this particular objective.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
17. Tourism and Intercity Travel (contd.)		5. Students develop collages of airplanes that service different transportation functions. (Elementary) (283)*	Art
		6. Students play the game Transportation** (planning and taking imaginary trips within the continental United States) and then adapt it to the specific circumstances of their community and replay it. (Elementary)	Games
		7. Students draw or collect pictures of different modes of transportation and discuss how they would use each mode. Students compare results to learn how different people use the same modes for different purposes. Student then discuss which of the modes they identified are available in their community, which are missing, and why. (Elementary)	Discussion
		8. Students call or visit a travel agent to discuss the various rates charged for different means of transportation. (Secondary/adult)	Field Trip

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*Number refers to Bibliography entry that provided idea for the activity.

**Available from Games Central, 55 Wheeler Street, Cambridge, Massachusetts 02138. Complete classroom kit, $24.00 plus $1.50 shipping and handling charge.

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
17. Tourism and Intercity Travel (contd.)		9. Students compare cost and convenience in selecting best method of travel between two cities. (Secondary/adult)	Research
		10. Students discuss or role-play scenarios in which consumers seek redress of grievances, such as • assessing airlines for damaged baggage (airline representative should be aware that some consumers fake damages or lost items to make money); • claiming compensation for being bumped from a flight; • finding that the hotel in which the airline has booked passengers in their package deal is 100 miles outside the main city; • discovering the car rented from a car rental company has defective seat belts, is dirty, or has bald tires; and • noticing that the bus driver has been drinking, is driving recklessly, is discriminating against certain passengers, or is rude. (Secondary/adult)	Role-play or Discussion
		11. Students discuss or role-play scenarios in which a community--their own, a neighboring one, or a fictitious one--is seeking ways to increase tourism. Students can play parts of homeowners, taxpayers, merchants, politicians, and others who may advocate or oppose certain or all measures to increase tourism. (Secondary/adult)	Role-play or Discussion

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
17. Tourism and Intercity Travel (contd.)		12. Students perform math problems on uniform motion and average velocity. (Secondary/adult)	
		13. Students conduct poll on problems citizens encounter in intercity travel. Poll format, questions, and strategy can be learned from Traveler Service Study or the Evaluation of Traveler Service Problems reports. (Secondary/adult) (275, 276)*	Polls
		14. Students read How to Fly, interview several experienced air travelers about their flying experiences and problems, and compare the results. (Secondary/adult) (288)*	Reading
		15. Students do volunteer work for a travel service organization, such as researching the status of accommodations, making reservations, or handling consumer complaints. (Secondary/adult)	Volunteer Work

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*Numbers refer to Bibliography entry that provided the idea for the activity.

BIBLIOGRAPHY

a) Teacher Materials

*274. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide Unique curriculum guide that covers all major areas of intercity transportation, including intercity travel, but few "Suggested Pupil and Teacher Activities" are detailed or exciting. Guide is organized by understandings, activities, and sources. Good photographs and drawings provided.

The University of the State of New York
State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

275. EVALUATION OF TRAVELER SERVICE PROBLEMS, 1972. Adults. 20 pages. $3.00.

Report Account of consumer complaints about intercity air, bus, and rail travel. Many of the conclusions are obvious to anyone who has ever flown. A recommendations section is appended.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
PB 210-644

276. TRAVELER SERVICE STUDY, 1970. Adults. 35 pages. $3.00.

Report Identification of principal traveler service problems in domestic intercity air, bus, and rail transportation, with special focus on the problems of the so-called transportation deprived. Useful for information about service problems in air transport. However, much of what is concluded applies only or primarily to the needs of the transportation deprived--the young, elderly, poor, ill, and handicapped.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
PB 193-200

277. DESTINATION U.S.A., VOLUME I: SUMMARY REPORT, 1973. Grades 9-adult. 108 pages. $2.00.

Pamphlet Summary volume in a series of six that treats all aspects of tourism. Summary report volume includes brief factual discussions of consumer concerns about transportation, the airline industry, information, and travel by minority groups. References are provided to other volumes where these topics are discussed in further detail.

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

***278. TRANSPORTATION, by Judith Platt, 1972. Grades 3-6. 15-page Teacher Manual; 30 Trip Cards; packet of daily schedules; four vehicle mode signs; four cost formula signs. $16.00.

Game Educational game in which players plan, arrange, and "take" trips via different modes of passenger transportation, including bus, train, air, and car. Game presents players with specific transportation problems for which arrangements must be made with other students who act as travel agents for each of the four modes. Game involves use of elementary math skills and therefore introduces interdisciplinary learning approach.

Games Central
55 Wheeler Street
Cambridge, Mass. 02138

**279. MATHEMATICS FOR DAILY LIVING, by Harry Lewis, 1970. Grades 9-12. 600 pages (100 on transportation). $6.95 (schools: $5.22).

Textbook Presentation of math problems in context of several consumer issues including air travel. Of particular value as an interdisciplinary approach. Deals with math problems related to time tables, travel costs, insurance, and use of maps.

McCormick-Mathers Publishing Co.
300 Pike Street
Cincinnati, Ohio 45202

**280. AEROSPACE ARITHMETIC: A SUPPLEMENT FOR ELEMENTARY ARITHMETIC, 1964. Grades 1-6. 16 pages. 25¢.

Guide Series of math problems, by grade level, based around airplanes, such as counting passenger seats in a sketch, adding the cost of tickets, computing speed, and making simple line and bar graphs. Not strictly consumer related but of value because of its interdisciplinary approach and as a method for raising transportation consumer issues at the elementary level.

National Aerospace Education Council
806 15th Street, N.W.
Washington, D.C. 20005

*281. AEROSPACE UNITS FOR ELEMENTARY SCIENCE CLASSES, 1969. Grades 2-3. 20 pages. Free.

Guide Curriculum guide on airplanes and weather for second and third grades. Not particularly consumer oriented but has excellent bibliographies of free materials, books for teachers and students, and films. Concepts and activities are provided on general aviation, air travel, what makes airplanes fly, the parts of an airplane, and the effect of weather on air travel.

Federal Aviation Administration
Aviation Education Programs Division A6A 300
Office of General Aviation Affairs
Washington, D.C. 20591

282. AERONAUTICAL SCIENCE COURSE OF STUDY, 1969. Grades 9-adult. 258 pages; bound and three-hole punched. $2.25.

Guide Comprehensive curriculum guide on aeronautics. Only one chapter (22 pages out of 258) is relevant to the consumer: "Economic Factors of Aviation and Space." The chapter covers primarily the functions of the CAB, FAA, and other agencies, with brief mention of need for airports and different types of airplanes. A resource/bibliography section is provided. Suggested activities are few and not exciting--e.g., "Have the students look up the required number of hours of instruction for various kinds of licenses." Most of the guide is devoted to outlining the factual material to be taught.

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

283. AVIATION EDUCATION: TEACHER'S GUIDE FOR SST..T..T, n.d. Grades K-6. 73 pages. Free.

Bibliography Issue of SST (supersonic transport plane) is out of date, but guide contains useful bibliography of books for children on aviation (page 63).

Department of Transportation
Federal Aviation Administration
Aviation Education Programs Division A6A 300
Office of General Aviation Affairs
Washington, D.C. 20591

*284. OUR RAILROADS IN PRINT, 1973. Grades K-adult. 76 pages. Free.

Bibliography Annotated and comprehensive listing of books and periodicals on every aspect of trains. Most are for the general reader. Included are children's and juvenile books. Complete publishers' addresses are provided.

Association of American Railroads
Office of Information and Public Affairs
1920 L Street, N.W.
Washington, D.C. 20036

b) Student Materials

285. EVALUATION OF TRAVELER SERVICE PROBLEMS, 1972. Adults. 20 pages. $3.00.

Report Account of consumer complaints about air, bus, and rail travel. Much of what is concluded is obvious to anyone who has ever flown. A recommendations section is appended.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151
PB 210-644

286. TRAVELER SERVICE STUDY, 1970. Adults. 35 pages. $3.00.

Report Identification of principal traveler service problems in domestic intercity air, bus, and rail transportation with special focus on the problems of the so-called transportation deprived. Useful information about service problems in air transport. However, much of what is concluded applies only or primarily to the needs of the transportation deprived--the young, elderly, poor, ill, and handicapped.

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, Virginia 22151
PB 193-200

***287. TRANSPO TOPICS FOR CONSUMERS, n.d. Adults. 8 pages. Free.

Periodical

Very useful newsletter on a variety of transportation developments, many of which affect the public as users of intercity transportation facilities. Discusses such topics as legislation, local transportation problems, new publications, and teaching materials.

Department of Transportation
Office of the Secretary
Office of Consumer Affairs
400 Seventh Street, S.W.
Washington, D.C. 20590

**288. HOW TO FLY, 1973. Adults. 31 pages. Free.

Pamphlet

Tips for the commercial air passenger. Pamphlet gives the everyday air traveler several useful tips on reservations, baggage, buying tickets, flying abroad, flying with children, health problems, and flying with pets. Although booklet recognizes that baggage can get lost and suggests what to do if it does, booklet does not clearly indicate passengers' rights if they are bumped from a flight. Illustrated.

Air Transport Association of America
1709 New York Avenue, N.W.
Washington, D.C. 20006

**289. AIR TRAVELERS' FLY RIGHTS, 1973. Grades 10-adult. 16 pages. Free.

Pamphlet

Useful information on airplane fares, denied boarding (bumping), flight delays and cancellations, and luggage, all discussed in terms of the flyer's rights.

Civil Aeronautics Board
Washington, D.C. 20428

*290. TEXTBOOKS ON RAILROADS, 1970. Adults. 7 pages. Free.

Bibliography

Mimeographed list of textbooks, with publishers' addresses, on various aspects of railroads, including engineering and maintenance, accounting, economics, finance, logistics, traffic management, rates, and regulation. Books are for use in college and university transportation courses.

Public Relations Department
Association of American Railroads
American Railroads Building
Washington, D.C. 20036

291. TRAVEL MARKET YEARBOOK. 132 pages. Adult. $15.00.

Annual

Annual publication that surveys the travel market in terms of current activities and future trends. Discusses hotel and motel industry, rent-a-car market, credit cards, and travel agents, as well as airlines, buses, and trains. Largely geared for professional travel agents but of some use to consumers.

Travel Market Yearbook
P.O. Box 907
Manchester Center, Vermont 05255

c) Audiovisual Materials

292. AEROSPACE UNITS FOR ELEMENTARY SCIENCE CLASSES, 1967. K-6. 20 pages. Free.

Bibliography

Guide with lists of 13 annotated films, including ordering sources.

Federal Aviation Administration
Aviation Education Programs Division A6A 300
Office of General Aviation Affairs
Washington, D.C. 20591

293. AVIATION EDUCATION: TEACHER'S GUIDE FOR SST..T..T, n.d. Grades K-6. 73 pages. Free.

Bibliography

Issue of SST (supersonic transport plane) is out of date, but does contain useful bibliography of audiovisual materials on aviation for children (pages 64-65).

Department of Transportation
Federal Aviation Administration
Aviation Education Programs Division A6A 300
Office of General Aviation Affairs
Washington, D.C. 20591

294. A TRIP TO THE AIRPORT, 1974. Bilingual (Spanish-English). Grades 1-6. Filmstrip and accompanying text.

Filmstrip

Material using the airport as a focus for (1) learning fundamentals of air transportation and (2) introducing careers in air transportation.

For previewing:
FAA Film Library
AC-921, Aeronautical Center
P.O. Box 25082
Oklahoma City, Oklahoma 73124;

For purchase:
Special Assistant for Aviation Education
Department of Transportation
Federal Aviation Administration
Aviation Education Staff
Washington, D.C. 20590

295. FAA FILM CATALOG, 1972. Grades 10-adult. 20 pages. Free.

Catalogue Description of Federal Aviation Administration films and how to order them. Contains very few consumer-oriented movies; most are oriented toward provision of information about aviation history, safety, and weather.

Federal Aviation Administration
Film Library, AC-44.5
P.O. Box 25802
Oklahoma City, Oklahoma 73125

296. A ROUNDHOUSE OF FILMS, 1972. Grades K-adult. 64 pages. Free.

Catalogue A listing of 275 films and filmstrips on all aspects of railroads. For example, one movie, THE GREATNESS OF AMERICA, describes how the railroads affect the personal lives of all Americans. Other movies describe the decline in the use of railroads since the advent of the automobile and airplane.

Public Relations Department
Association of American Railroads
America Railroads Building
Washington, D.C. 20036

18. TRANSPORTATION FOR THE FUTURE

How will we be traveling in ten years or in 25 years? The possibilities may range from an improved, safer private vehicle to a system of small vehicles traveling on an exclusive guideway network under computer management. In 20 years passengers may travel between cities on 300 mph tracked air cushion trains. On the other hand, the energy shortage may dictate reduced travel or the development of vehicles that use energy very sparingly, or at least very efficiently. Recent technology and study have produced several alternatives for future modes of travel, both local and intercity. In most cases the pros and cons of these proposals are not well understood by the public.

In order to participate intelligently in the community's choices for the future, consumers must know about the technical options, the short-term and long-term advantages and disadvantages in terms of travel, economic and social consequences, and maximal use of limited energy resources. An education program concerned with future transportation options could help the consumer make responsible decisions about desirable transportation innovations and changes; who is and should be responsible for implementing these innovations and changes; and advocating and planning desirable innovations and changes.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
18. Transportation For the Future	Students demonstrate knowledge, skills, and attitudes about new transportation modes and needs in order to make responsible decisions about	1. Students discuss future transportation facilities within the context of the entire field of transportation and identify the important interfaces between future transportation facilities and other transportation concerns and topics. (Secondary/adult)	Discussion
	1. desirable transportation innovations and changes (1-4,5,8);*	2. Students write science fiction stories creating transportation systems or modes of the future that respond to present or hypothetical future needs. (Elementary/secondary)	Writing
	2. who is and should be responsible for implementing desirable innovations and changes (1,5);* and	3. Students describe and defend an imaginary vehicle for which they believe there is or will be a need within the next fifty years. (Secondary/adult) (39)**	Writing
	3. advocating and planning desirable innovations and changes (1).*	4. Students research different types of future transportation facilities, such as car-carrying trains, dial-a-bus systems, personal helicopters, electric cars, and air cushion vehicles. Students discuss which are viable in terms of costs, effectiveness, and need. (Secondary/adult)	Research
		5. Students select a transportation facility of the future that they feel should be developed and discuss who should be responsible for its development --private industry, state governments, Federal government, or some combination of them. (Secondary/adult)	Discussion

*Numbers refer to sample activities which address this particular objective.
**Number refers to Bibliography entry that provided the idea for the activities.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
18. Transportation For the Future (contd.)		6. Students discuss what the country's or their community's future transportation needs are likely to be and whether existing transportation facilities are likely to meet these needs. If not, students develop ideas for facilities that will. (Secondary/adult)	Discussion
		7. Students research the rotary engine by interviewing engineers or auto dealers (or both) and determine its advantages and drawbacks. (Secondary/adult)	Research
		8. Students interview transportation planners to learn how the energy shortage will affect transportation for the future. (Secondary/adult)	Interviews

BIBLIOGRAPHY

a) Teacher Materials

*297. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide — Unique curriculum guide devoted just to the consumer and transportation. Covers all major areas of transportation, including futuristic modes, but "Suggested Pupil and Teacher Activities" are not creative or detailed.

The University of the State of New York
The State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

*298 TRANSPORT TECHNOLOGY: THE DECADE AHEAD, 1970. Grades 11-adult. 24 pages. Free.

Article — Interesting and informative discussion of futuristic methods of transportation by railroad, airlines, trucks, cars, and boats. Extremely well illustrated.

Office of General Aviation Affairs
Federal Aviation Administration
Washington, D.C. 20590

b) Student Materials

***299. TRANSPO TOPICS FOR CONSUMERS, n.d. Adults. 8 pages. Free.

Periodical — Very useful newsletter on a variety of transportation developments including transportation and the future. Discusses such topics as legislation, local transportation programs, new publications, and teaching materials.

Department of Transportation
Office of the Secretary
Office of Consumer Affairs
400 Seventh Street, S.W.
Washington, D.C. 20590

c) Audiovisual Materials

No relevant audiovisual materials on transportation for the future have been located.

19. TRANSPORTATION PLANNING AND CITIZEN PARTICIPATION

"Highway Revolt," "Stop Airport Expansion," "More Mass Transit." These slogans are symptomatic of the increase in citizen interest in the results of transportation planning. In many cases, this concern has been recognized and incorporated into the planning process. The goals have been to include public and private leaders concerned with the whole urban area; to consider controversial issues before they create a crisis; and to encourage cooperation among different interests and municipalities. A notable example of this was the Boston Transportation Planning Review which operated in the Boston Massachusetts Metropolitan Area. This planning organization was guided by citizens' committees and produced an areawide transportation plan. The Federal government continues to promote citizen participation in all transportation projects involving Federal funds.

Although citizen participation has become an important aspect of the transportation planning process, many people do not have the knowledge or skills required to participate effectively. Generally, the transportation consumer must be familiar with the roles and responsibilities of different levels of government, with the complex series of steps involved in the government's planning and decision-making process, and with the opportunities for citizen contributions. Then he or she can determine the appropriate level and area for intervention and the type of participation strategy that would be most successful. The consumer should also be able to carry out these strategies.

An educational program concerned with this subject would help the student make responsible decisions about which agencies and individuals have influence and authority in transportation planning and what actions citizens can take as individuals and in a group to influence transportation planning. In terms of specific planning activities, education can enable transportation consumers to evaluate what criteria should be used to plan transportation and to make decisions about what specific transportation plans should be implemented.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
19. Transportation Planning and Citizen Participation	Students demonstrate knowledge skills, and attitudes about transportation planning in order to make responsibile decisions about	1. Students discuss transportation planning within the context of the entire field of transportation and identify the important interfaces between transportation planning and other transportation concerns and topics. (Secondary/adult)	Discussion
	1. what agencies and individuals have influence and authority in transportation planning (1,3,6);*	2. Students develop a brief list of human needs and discuss whether and how transportation services and vehicles can help to satisfy those needs. (Elementary/secondary) (39)**	Discussion
	2. what actions citizens can take as individuals and in a group to influence transportation planning (1,4,6);*	3. Students discuss what the taxes should be on transportation goods and services and what the revenues should be used for. Results are compared with existing Federal, state, and local transportation taxes. (Secondary/adult)	Discussion
	3. what specific transportation plans should be implemented (1,2,3,5);* and 4. what criteria should be used to plan transportation (1,2,4).*	4. Students identify a number of transportation changes made in their community in the recent past and discuss whether these changes have improved local travel in terms of convenience, safety, cost, and environmental effects. Students then select one change that was healthy and one that was not and research the process by which each was planned to determine the extent to which transportation planning and the nature of transportation planning influence the wisdom of transportation decisions and actions. (Secondary/adult)	Discussion/research
		5. Students discuss and give examples of the importance of transportation planning in terms of presenting problems before they occur rather than attempting to remedy problems after they exist. (Secondary/adult)	Discussion

*Numbers refer to sample activities which address this particular objective.

**Number refers to Bibliography entry that provided the idea for the activity.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
19. Transportation Planning and Citizen Participation (contd.)		6. Students read Alan Lupo's Rites of Way and identify the elements of transportation planning which citizens influenced or participated in. Students then identify similar elements in the transportation planning process in their own community where citizens could exert influence or participate. (Secondary/adult) (300)*	Reading

*Number refers to Bibliography entry that provided the idea for the activities.

BIBLIOGRAPHY

a) Teacher Materials

*300. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide Unique curriculum guide devoted just to the consumer and transportation. Covers all major areas of transportation, including planning but "Suggested Pupil and Teacher Activities" are not creative or detailed.

The University of the State of New York
The State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

b) Student Materials

***301. RITES OF WAY: THE POLITICS OF TRANSPORTATION IN BOSTON AND THE U.S. CITY, by Alan Lupo, Frank Colcord, and Edmund P. Fowler, 1971. Adult. 294 pages. $3.95, paperback.

Book Detailed account of how community opposition in metropolitan Boston forced the state and local governments and quasi-independent commissions to abandon plans to construct freeways in and around the city. Book also discusses who makes transportation decisions in major U.S. cities, the politics of such decisions, and the elements that should be included in comprehensive regional transportation planning. While a unique and fascinating document of one community's struggle and strategies to be heard, some readers may find the level of detail wearing.

Little Brown and Company
34 Beacon Street
Boston, Massachusetts

**302. THE ACCESSIBLE CITY, by Wilfred Owen, 1972. Adult. 150 pages. $2.95.

Book Discussion of big-city transportation problems, their nature and how they can be solved. Book provides considerable basic factual information on the worldwide and national urban transportation crisis. Main thesis is that transportation must be planned in the context of more important objectives, such as the provision of housing, health, employment, and recreational opportunities.

The Brookings Institution
1775 Massachusetts Avenue
Washington, D.C. 20036

***303. TRANSPO TOPICS FOR CONSUMERS, n.d. Adults. 8 pages. Free.

Periodical

Very useful newsletter on a variety of transportation developments all of which affect the public as users of transportation facilities. Discusses such topics as legislation, local transportation programs, new publications, and teaching materials.

Department of Transportation
Office of the Secretary
Office of Consumer Affairs
400 Seventh Street, S.W.
Washington, D.C. 20590

304. THE FREEWAY IN THE CITY, 1968. Adult. 141 pages. $3.00.

Book

Somewhat technical discussion of the principles of urban freeway planning and design. Two useful chapters discuss comprehensive planning and community values and the systems approach to highway planning.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

305. TRANSPORTATION CONSUMER'S GUIDE TO PROGRAMS AND SERVICES OF THE UNITED STATES DEPARTMENT OF TRANSPORTATION, 1974. Grades 9-adult. 36 pages. Free.

Pamphlet

Descriptions of the structure and functions of the several agencies within the Department of Transportation, along with a list of consumer publications each agency has available.

Department of Transportation
Office of the Secretary
400 Seventh Street S.W.
Washington, D.C. 20590

c) Audiovisual Materials

No relevant audiovisual materials on transportation planning have been located.

20. URBAN TRANSPORTATION PROBLEMS[1]

Transportation has been a major metropolitan problem since the rise of urban settlements. Whether the streets were clogged with carts or automobiles, the basic causes are the same: the interaction between the nature of the transportation system and the way people travel. In order to understand why we have the transportation system that now exists, it is necessary to know something about how and why our cities grew the way they did.

Growth of large factories and commercial districts, usually near accessible waterways, drew people to the cities where jobs were plentiful. As a result, cities became centers where people both worked and lived. With the invention of the elevator and the development of the skyscraper, even more workers and their families were able to live and find employment within the central city areas.

However, with the development of convenient and relatively inexpensive means of transportation, including the trolley, subway, and automobile, people found they could reside in communities bordering the city--suburbs--where living conditions were more pleasant, and still work in the cities. Commuting from home to work and back on a daily basis became a common practice.

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[1] For additional activities on urban transportation problems see Curriculum Unit 13, "Public Transportation." It should be noted, however, that although many urban transportation problems can be traced to and alleviated by public transportation, not all urban transportation problems are public transportation problems. It is for this reason that there are two separate units in this Guide.

As a teacher you can deal with these two distinct yet overlapping transportation problems in one of three ways:

1. teach only one unit or the other, depending on your needs and the needs of your students;

2. teach both units one after the other; or

3. combine activities from the two units into one unit.

Eventually, these suburbs, too, grew crowded and merged imperceptibly with the cities themselves creating a phenomenon called "urban sprawl." Large portions of the country became populated with high concentrations of people, including an almost continuous urban area extending from Boston to Washington, D.C. and hundreds of square miles around cities like Chicago and Los Angeles.

Suburbs--most of them merely extensions of their neighboring cities--have continued to expand to this day, made more convenient and attractive through financial incentives for interstate highway development (which facilitated ever longer commuting distances from home to work), separation of low-tax suburbs from high-tax central cities (which made it as inexpensive to live in the suburbs as the cities, despite the travel expenses of commuting), and credit arrangements for home and automobile purchase (which made it financially possible for people of moderate means to move out of the central cities).

These policies and developments have produced a transportation system that offers few alternatives for the urban or suburban traveler. Although it is fashionable to use psychological theories to explain Americans' fascination with the automobile, such explanations are misleading. The act of driving an automobile into the city to work is the end product of a decision-making process that includes a number of variables: travel purpose, available means of transportation, travel values, available resources and skills. In order to fully understand urban travel behavior and how it relates to public transportation problems, these variables must be identified and understood.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
20. Urban Transportation Problems	Students demonstrate knowledge skills, and attitudes about urban transportation problems in order to make responsible decisions about 1. what the urban transportation problems are (1-5,9,10,11,13);* 2. how urban transportation problems can be solved (1-10,12,14);* 3. who has influence and authority for solving urban transportation problems (3,5,7);* and 4. what actions citizens can take individually and collectively to solve urban transportation problems (7,8,10,12,14).*	1. Students discuss how the lack of adequate public transportation contributes to urban transportation problems and identify urban transportation problems that would and may exist regardless of the level of public transportation available. (Elementary/secondary)	
		2. Students select an obsolete mode of travel, like a chariot, covered wagon, or horse and buggy, and project it into the modern setting, discussing what problems would arise from such transportation modes and what advantages they would offer. Comparisons can then be made between those problems and advantages and modern transportation problems and advantages. (Elementary/secondary) (39)**	Discussion
		3. Students collect transportation advertisements and analyze what appeals are made. They then see if these appeals contribute to urban transportation problems. (Elementary/secondary)	Discussion
		4. Students discuss urban transportation problems within the context of the entire field of transportation and identify the important interfaces between urban transportation problems and other transportation concerns and topics. (Secondary/adult)	Discussion
		5. Students research alternate sources of energy and discuss whether they think these alternate sources will be used, why or why not, and the extent to which public transportation could reduce the need for energy. (Secondary/adult)	Research
		6. Students write short stories about hypothetical sources of energy and compare their ideas with scientific data about possible energy sources. (Secondary/adult)	Writing

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*Numbers refer to sample activities which address this particular objective.
**Number refers to Bibliography entry that provided the idea for the activity.

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
20. Urban Transportation Problems (contd.)		7. Students discuss solutions to city traffic problems, such as carpooling and increased use of public transportation and conduct interviews or a poll on whether automobile users are likely to use the solutions. (Secondary/adult)	Discussion
		8. Students are given a case study or write one of their own that involves a specific family's transportation needs and the factors influencing those needs and select the best method(s) of transportation for meeting those needs. (Secondary/adult)	Writing
		9. Students choose a person they know or make up one and analyze the extent to which transportation is essential or desirable in that person's life. (Elementary/secondary)	Discussion
		10. Students poll classmates, teachers, or residents on how they get to work and could get to work and analyze the results in terms of the availability of public and private transportation facilities and traffic congestion. (Secondary/adult)	Polls
		11. Class splits into three groups; one group interviews people on streets, subways, and buses to determine what transportation users see as urban transportation problems; one group interviews transportation officials and experts to determine their views; a third group rides subways, buses, and cars at various times of the day. The groups then compare their data and attempt to explain any discrepancies. (Secondary/adult)	Interviews

ACTIVITIES INDEX

TOPIC	OBJECTIVE	SAMPLE ACTIVITY DESCRIPTIONS	ACTIVITY DEVELOPMENT AIDS
20. Urban Transportation Problems (contd.)		12. Students interview automobile commuters on what they see as the advantages and handicaps of carpools and whether they believe increased use of carpools can help reduce urban transportation problems. (Secondary/adult)	Interviews
		13. Students compute the economic and time costs of using existing public transportation facilities as opposed to private cars. (Secondary/adult)	Research
		14. Students subscribe to and read issues of Transpo Topics for Consumers and develop a school or community periodical or newsletter of their own. (Secondary/adult)	Reading/ writing

BIBLIOGRAPHY

a) Teacher Materials

*306. THE CONSUMER AND TRANSPORTATION, 1972. Grades 9-12. 116 pages. 75¢.

Guide Unique curriculum guide devoted just to the consumer and transportation. Covers several major urban transportation problems, including decline of public transportation, urbanization, and commuter railroad financing. "Suggested Pupil and Teacher Activities" are not creative or detailed.

The University of the State of New York
The State Education Department
Bureau of Secondary Curriculum Development
Albany, New York 12224

b) Student Materials

*307. THE URBAN TRANSPORTATION PROBLEM, by J.R. Meyer et al., 1966. Adults. 427 pages. $4.50, paperback.

Textbook In-depth survey of urban transportation issues. A standard treatment of such issues as recent trends in urban location, highway financing, line-haul systems, and costing procedures. Although generally accessible to the lay reader, several sections require a knowledge of statistics to be fully understood.

Harvard University Press
79 Garden Street
Cambridge, Mass. 02138

**308. THE ACCESSIBLE CITY, by Wilfred Owen, 1972. Adult. 150 pages. $2.95.

Book Discussion of big-city transportation problems, their nature and how they can be solved. Book provides considerable basic factual information on the worldwide and national urban transportation crisis. Main thesis is that transportation must be planned in the context of more important objectives, such as the provision of housing, health, employment, and recreation opportunities.

The Brookings Institution
1775 Massachusetts Avenue
Washington, D.C. 20036

***309. TRANSPO TOPICS FOR CONSUMERS, n.d. Adults. 8 pages. Free

Periodical

Very useful newsletter on a variety of urban transportation developments all of which affect the public as users of transportation facilities. Discusses such topics as legislation, local transportation programs, new publications, and teaching materials.

Department of Transportation
Office of the Secretary
Office of Consumer Affairs
400 Seventh Street, S.W.
Washington, D.C. 20590

***310. RITES OF WAY: THE POLITICS OF TRANSPORTATION IN BOSTON AND THE U.S. CITY, by Alan Lupo, Frank Colcord, and Edmund P. Fowler, 1971. Adult. 294 pages. $3.95, paperback.

Book

Detailed account of how community opposition in metropolitan Boston forced the state and local governments and quasi-independent commissions to abandon plans to construct freeways in and around the city. Book also discusses who makes transportation decisions in major U.S. cities, the politics of such decisions, and the elements that should be included in comprehensive regional transportation planning. While a unique and fascinating document of one community's struggle and strategies to be heard, some readers may find the level of detail wearing.

Little Brown and Company
34 Beacon Street
Boston, Massachusetts

c) Audiovisual Materials

No relevant audiovisual materials on urban transportation problems have been located.

RESOURCES

1. INSTRUCTIONS FOR DEVELOPING TRANSPORTATION CONSUMER EDUCATION CURRICULA

It was not possible to provide complete, ready-made lesson plans for all transportation consumer topics. We are therefore providing a curriculum development process by which you can, with a minimum of effort, develop your own lesson plans around transportation consumer topics that are of concern to you and your students. Developing a lesson plan of necessity involves some effort. In the curriculum development process provided here, we have attempted to simplify that effort as much as possible. Although the process may at first sound complicated, a second reading and actual implementation of it should reveal its relative simplicity.

There are five major steps to developing a lesson plan on transportation consumer education:

a. determine student, teacher and community concerns about transportation consumption;

b. select objectives from the Activities Index that will meet these concerns;

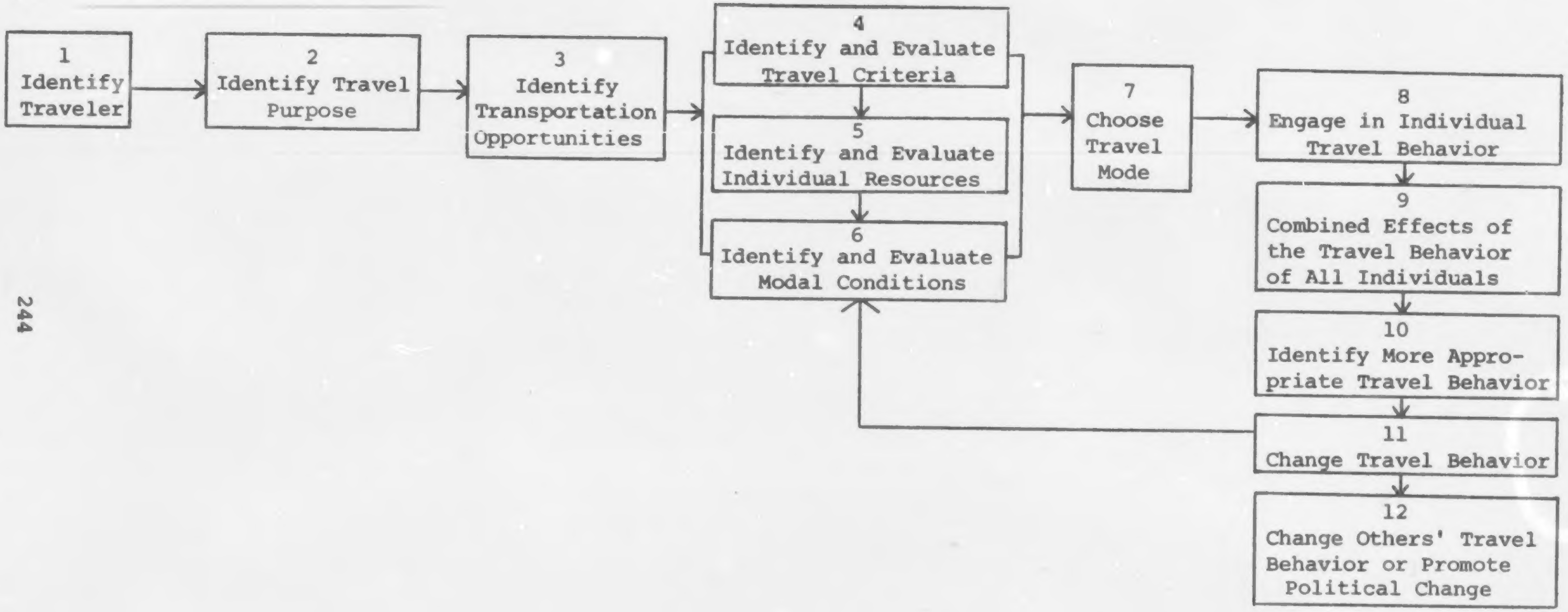
c. select capsule activity descriptions from the Curriculum Activities Index that will achieve these objectives;

d. develop detailed activities; and

e. order the activities into a lesson plan, beginning with activities that focus on student concerns.

a. Determine Student and Teacher Concerns

We recommend that you devote some time to learning what transportation consumer topics students are concerned about. Once student concerns have been identified, you can deal with two other sets of concerns--your own and those of the community. Perhaps you have preexisting concerns about what students need to learn about transportation consumer education. You can supplement these by examining the boxes on the decision-making flow chart on the following page for additional aspects of transportation consumerism that you feel your students should learn about. The chart presents all the behaviors and decisions a person needs to be concerned with if he is to make


1
Identify Traveler
2
Identify Travel Purpose
3
Identify Transportation Opportunities
4
Identify and Evaluate Travel Criteria
5
Identify and Evaluate Individual Resources
6
Identify and Evaluate Modal Conditions
7
Choose Travel Mode
8
Engage in Individual Travel Behavior
9
Combined Effects of the Travel Behavior of All Individuals
10
Identify More Appropriate Travel Behavior
11
Change Travel Behavior
12
Change Others' Travel Behavior or Promote Political Change

TRANSPORTATION DECISION-MAKING FLOW CHART wise choices about the purchase and use of transportation goods and services. A detailed explanation of the chart is provided in Section 2 of the Introduction.

You can determine community concerns by reading the local newspaper, talking with responsible public and private officials, and examining some of the resource materials recommended in the Bibliographies.

b. Select Objectives to Meet Concerns

Once the topics you and your students are concerned about have been diagnosed, locate the curriculum units that treat these topics. Within these units, turn to the Activities Index and select specific objectives in the OBJECTIVE column that correspond to these topics and concerns. For example, if students are concerned about getting community biking facilities, turn to the curriculum unit on bicycles and locate in the OBJECTIVE column of the Activities Index "community biking facilities."

c. Select Capsule Activity Descriptions

Located under each of these objectives in the Activities Index are a series of numbers. These numbers designate the sample activity descriptions in the third column that are designed to achieve each objective. For example, if you have selected the objective "Students demonstrate...responsible decisions about advocating or planning community bicycle facilities," you will notice that Activities 4 and 11 will help achieve this objective. Then read the corresponding activity descriptions in the third column and decide in consultation with students which activity descriptions to develop into complete classroom activities. Select those activity descriptions that not only will achieve your teaching objectives but also

- fit in with your subject area (to assist in selecting appropriate subject area activities a Subject Area Cross Reference has been provided in Resource #3);
- fit students' resources, including their age and grade level, ways in which they learn most effectively, and previous learning and experience.

- provide opportunities for students to explore their own opinions and feelings;
- mix methods to avoid boredom and repetitive learning techniques;
- will enable you to evaluate whether students have achieved the objectives;
- will not require a great deal more time to teach than you will have available; and
- will leave you spare time to deal with new student concerns that may develop during the course.

d. Develop Detailed Activities

Having selected the capsule activity descriptions, develop them into complete classroom experiences using duplicated copies of the blank activity sheet provided on the following page. Resource #2 is available to assist you in this process. Resource #2, Teaching Methods, explains how each of the teaching methods suggested in the Activities Index can be implemented in a transportation consumer education classroom. Until you become familiar with this section, or with the parts relevant to you, you can reread the specific teaching method section that relates to the activity you are about to develop.

e. Arrange Activities into a Lesson Plan

Once all the selected capsule activity descriptions have been developed into complete classroom activities, decide in what order to teach them. As you put them into a logical sequence, make sure that

- information needed for each activity has been previously learned, and
- teaching methods are mixed to avoid boredom.

You can duplicate copies of the blank Curriculum Outline page that follows the sample activity and fill them in with a day-by-day activity schedule.

Finally, you will need to adapt your lesson plan to fit the maximum amount of time you have available by adding or expanding activities or eliminating or shortening them.

ACTIVITY #:

GRADE LEVEL(S):
CLASS TIME:

TOPIC:
METHOD:

CORE ACTIVITY:

ACTIVITY

SAMPLE DETAILED ACTIVITY

ACTIVITY #5*

GRADE LEVEL(S):	9 - 12	TOPIC:	Surveying Bicycle Issues
CLASS TIME:	1 period	METHOD:	

CORE ACTIVITY: Students role-play scenarios in which a consumer complains to a salesperson or mechanic.

OBJECTIVE: To be able to seek redress of grievances effectively and appropriately for unsatisfactory purchases and repairs.

ACTIVITY

Students role-play customers seeking redress of grievances from bicycle repairmen or salespeople who, according to these "consumers," have engaged in unfair business practices. Sample role profiles are provided on the following page.

After each role play, participants read their role profiles to the class and discuss the feelings they had while role-playing; in particular, "salespeople" and "mechanics" discuss their emotional reactions to different approaches on the part of "customers"--which approaches made them more likely to be firm and which approaches inclined them to make concessions. Nonparticipants discuss what they would have said and done had they been involved. The class should be encouraged to write its own role profiles.

After completion of the role-plays, list on the blackboard the possible responses that salespeople and mechanics can offer to justify their positions and the possible approaches consumers can use in seeking redress of grievances.

Evaluation Method:

Students compose the dialogue to one or more scenarios, writing the parts of the customer and the salesperson.

Variation and Supplementary Activity:

This activity can be held as a class or small group discussion.

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*This activity has been taken from Pedal On! Mini-Units and Activities on Bicycling for grades 9-12, available from Abt Publications, 55 Wheeler Street, Cambridge, Mass. 02138. Price: $19.50.

Sample Role Profiles

Customer

Last week you bought a Whimper bicycle light for your bike for $3.50 at Arlo's Accessory Shop. The second time you used it, the on-off switch broke off. It's not something you can repair. You need a new light. You are angry and have taken the light back to Arlo's and walk up to him to demand he give you a new light for nothing or give you your money back. What do you say?

Salesperson

You work in Arlo's Accessory Shop. Most of the bicycle accessories you sell are cheap, but most of your customers don't want expensive bicycle lights, saddle bags, horns, and so on. The problem is that many of the accessories you sell break quickly because they're so cheaply made. It's store policy not to refund money on any sales or to exchange anything, so it's sometimes a problem when someone comes in the store with an accessory that broke quickly and he wants his money back. In fact here comes the customer who bought your last Whimper bicycle light last week. He looks angry. It must have broken already. Why didn't he (she) buy the more expensive Whopper light as you had suggested? Although the Whimper light is only $3.50 and the Whopper light is $12.50, the Whopper light wouldn't break. Well, here comes the complaint.

Page:

CURRICULUM OUTLINE SHEET

GRADE	OBJECTIVE	ACTIVITY NUMBER AND DESCRIPTION	CLASS TIME

Curriculum Development Checklist

The curriculum development checklist provides a convenient method by which you can record your progress as you develop transportation education lesson plans.

a. Determine Concerns ________

   i. solicit student concerns ________
   ii. formulate and record student concerns ________
   iii. solicit community concerns ________
   iv. formulate and record teacher and community concerns ________

b. Select Objectives to Meet Concerns ________

c. Select Activity Descriptions with reference to ________

   i. achieving objectives ________
   ii. subject area ________
   iii. student resources ________
   iv. student exploration opportunities ________
   v. variety of teaching methods ________
   vi. adequate evaluation ________

d. Develop Detailed Activities

   i. read or reread appropriate section(s) of Teaching Methods ________
   ii. reproduce copies of blank activity page ________
   iii. develop detailed activities ________

e. Arrange Activities into a Lesson Plan ________

   i. order activities into logical sequence so that
      i. opening activities ensure motivation ________
      ii. learning is cumulative ________
      iii. teaching methods are mixed ________
   ii. reproduce copies of blank lesson plan ________
   iii. fill in lesson plan pages with activities ________
   iv. adapt lesson plan to time available ________

2. TEACHING METHODS

INTRODUCTION

This section contains suggestions on how you can best implement the major teaching methods for use in a transportation consumer education curriculum. The methods discussed are

Debates

Discussions:
  Small group
  Class

Field trips

Games

Independent study

Interviews

Lectures

Peer teaching

Polls

Reading

Research and reports

Role-plays

Volunteer work

Writing

In a curriculum whose major goal is to influence attitudes and behaviors, teaching methods seem to be most effective when they

- involve students actively;
- take the resources and learning methods of students into account; and
- are chosen by students.

Although all teaching methods, from role-plays to lectures, have been integrated into the Activities Index in ways that are appropriate for transportation consumer education, some of them, such as role-plays, independent study, and small group discussions, are particularly useful for influencing attitudes and behaviors. Their particular value has been discussed in the following section. Ways of including other teaching methods effectively in transportation consumer education have also been suggested.

DEBATES

Debates are a useful learning method for studying the many controversial issues raised by a transportation consumer education curriculum, because

- They motivate students to research in depth transportation areas that concern them.
- They can encourage students to probe more deeply into their assumptions and opinions about consumer behavior in anticipation of or in response to the intense questioning of other students.
- They can inform participants of the arguments underlying different points of view.
- They can promote learning of transportation content information because it is researched or heard in a meaningful context.
- They can develop the important skills of thought organization, communication, and influencing.

Debates can be organized as an independent study or a class activity. They can be highly structured or very informal. For example, as independent study, a group of four to eight students decides to formally debate a controversial transportation topic. While the rest of the class engages in research projects of its own, the group divides itself into two or three subgroups, each of which will defend one side of the issue. Each subgroup is responsible for researching its position. The two or three subgroups, together, must set up a structured time schedule for opening statements, rebuttals, and concluding statements for the actual debate. They also have to agree on a system of judging. This entire process will normally require some assistance from the teacher, who, however, should not judge.

An informal class debate can be held, with or without prior student research, in which two or more groups choose or are assigned a point of view on a controversial issue and discuss it informally with each other in front of the class. This type of informal debate can be a good evaluation of what students have learned about a particular transportation issue. The debaters face each other in front of the class and, without recourse to formal opening statements or time constraints, discuss an issue, with the teacher or another student acting as moderator.

Controversial topics that students can debate include

- Resolved that no-fault insurance should be provided in every state.
- Resolved that gas station mechanics should be licensed by the state.
- Resolved that automobile manufacturers should provide full warranties on new cars for three years or 30,000 miles.
- Resolved that 10 percent of all transportation construction funds should be devoted to building bikeways.
- Resolved that safety belt use should be mandatory.
- Resolved that bicycle riders should pass driving tests and receive driver licenses.
- Resolved that the central business district should ban commuter cars from its streets from 7 a.m. to 7 p.m.
- Resolved that a .08 percent BAC in a driver should be per se evidence of driving under the influence.
- Resolved that all airport expansion and highway construction should be subject to a veto by the local community.
- Resolved that car pools of commuters should be rewarded with ten free gallons of gasoline per week.
- Resolved that hitchhiking should be made illegal and enforced.
- Resolved that false or misleading advertising by airlines, automobile dealers, and other purveyors of transportation goods and services be fined 3 percent of their profits for the year in which the advertising occurs.
- Resolved that school buses should be equipped with safety belts.

- Resolved that taxpayers should pay for providing transportation to meet the needs of the transportation disadvantaged (or of a particular group--handicapped, elderly, rural poor, youth, etc.).

- Resolved that sit-ins and other acts of civil disobedience are legitimate in the pursuit of transportation safety objectives--for example, to obtain a stop sign or street light at a dangerous intersection.

- Resolved that truck traffic should be banned on _______ Street between the hours of 10 p.m. and 7 a.m. (or: Resolved that city airports be closed between 11 p.m. and 6 a.m.).

- Resolved that free public transportation be made available to all residents (or tc the transportation deprived).

There is at least one potential handicap to learning effectively through debates. Students may end up believing that the issue being debated has one right and one wrong answer--that is, debates can foster black and white thinking and limit students' perception of alternatives. This would be particularly unfortunate in an area like transportation consumer studies where so many issues can be approached from several different angles--no one approach necessarily being the only right one.

The teacher can attempt to avoid this result by explicitly informing students that the issue being debated may be approached from several different points of view, not just the two or three that are being debated.

Follow-up discussion can focus on these other points of view. In addition, debates can, and where possible should, be held among three individuals or groups advocating three different positions. For example, on the issue of limiting cars from the central city, one group could support no ban, a second a tax on cars entering the city, and a third a total prohibition.

Following a debate the class should discuss:

- what participants and observers felt during the debate and why--such as anger, defensiveness, and frustration;

- what participants and observers learned during the debate and who had the best arguments;

- ways in which participants wished they had argued and ways in which observers would have argued had they been the debaters; and
- what other solutions exist for the problem discussed besides those debated.

DISCUSSIONS

Small Group Discussions

One of the most useful teaching methods in a consumer curriculum is to break classes down into small groups of students for intimate discussions.

Utility of small group discussions

- Small groups offer a more receptive setting than class discussions for students to express their feelings about transportation consumption, both in terms of the personal nature of such feelings and in terms of their strength. They often feel freer to express anger in arguing with a peer than with a teacher and less inclined to hide their real feelings about consumer issues since they know they can't "con" their friends.
- Small groups present the opportunity for awareness of alternative feelings toward and behaviors with transportation services and goods that students may overlook or consider unimportant when expressed by an adult.
- There is much more concern with sharing opinions than with impressing the teacher or supplying him with the "right" answer.
- In small group discussions students can follow the natural flow of their concerns about transportation--moving freely from one topic to another, unfettered by teacher restrictions or feelings that they must stick to one topic only. Small group discussions are a good way for the teacher to uncover the transportation consumer issues that concern his students so he can build further activities around them.
- Small group discussions develop several important skill areas needed to cope effectively with transportation consumer issues, including cognitive (describing, analyzing, questioning, evaluating), affective (feeling concerned, feeling responsible, accepting, empathizing), and communication skills (arguing, influencing, listening).

Forming small groups. A useful approach to structuring small discussions around transportation consumer issues is to present students with a scenario and have them record, in no more than a page, how they would respond and why. For example, rather than ask students to "write your opinion on whether or not cars should be banned from the city business district" students should be told: "You are a state legislator and a bill to prohibit cars from entering the CBD has come to the floor for a vote. How do you vote? Why do you vote that way? Or if you don't vote, why not?"

Two other approaches to obtaining student positions on a transportation consumer issue are to place them in the position of a "Dear Abby" columnist for a newspaper, or of a community hotline answering service. Students can be asked to respond to letters seeking advice, such as "Dear Abby, I have been going to parties with this cute boy, but every time we go he gets drunk and insists on driving me home. What shall I do? Bewildered."

These position papers should be written a day or two before the actual discussion so the teacher has time to assign students carefully to small groups on the basis of their positions.

Several different considerations need to be balanced in forming the best possible small groups of students to discuss transportation issues. One alternative is to let the students form their own groups. Usually this creates more problems than it solves. Friends stick with friends, the result being that students are frequently not exposed to different points of view. Introverted students may end up together, resulting in a continuous silence.

If the teacher decides to make the selections for the groups, the following factors should be balanced:

- The sex composition should be so arranged that no one is embarrassed by being the only girl or the only boy in the group, except for boys and girls who don't mind (and even relish) being the only member of their sex.

- All the talkative students should not be clustered in one group and all the silent students in another.

- Each group should be so balanced that conflicting points of view are represented about the transportation issue being discussed.

- Depending on the class and the teacher, it is often wise at the outset not to place several discipline problems in the same group.

Arrangement of the room can be left up to the discretion of the individual teacher and the facilities available. One useful method is to assign each group to a part of the room and when they get there turn the now unoccupied desks into small circles.

Structuring the discussions. When the teacher has broken the students into small groups, he can return the position papers and pass out written instructions specifying what they are to discuss in their groups. These instructions can be put on the blackboard, if necessary. But some form of written directions is advisable.

The groups can be assigned at least two tasks and given a blank sheet of paper on which to record their responses.

1. They can be asked to try to resolve their differences on transportation consumer issues (e.g., what should one do if the authorities fail to put up street lights at a dangerous intersection where your children play?). If they can, they write their common solution on the blank paper. If they cannot agree, they can write down all the different positions they still hold.

2. They should be asked to discuss why they believe that their position is the correct one. These reasons can also be recorded. Normally, the attempt at resolving different positions involves consideration of why these positions are maintained, but it is useful for students to be explicitly told to probe into the reasons behind each student's position.

While these discussions are in progress, the teacher can move from group to group listening in but interrupting only when necessary (to encourage a silent group; to discourage truly irrelevant discussions). In particular, he should watch for a tendency to reach agreement at the expense of serious discussion and questioning. The teacher may need to reinforce again and again that students should accept no statements or opinions about transportation from their classmates without asking them why they believe them, even when there is general agreement. (People often agree on a position for very different reasons.)

Following up the discussion. At the end of the period, or whenever discussion wanes, the papers can be collected. At this point, there are several options that can be followed:

- The small group discussions can be continued in the following class, either around the same transportation issue or some offshoot of that issue that seems to concern the students.

- A debate can be held between two groups who agree within themselves but not with each other.

All small group discussions should be followed by informing the class of each group's decision, preferably by having each group report its result to the rest of the class and then respond to questions and criticisms from the class and the teacher. At times it may be appropriate to duplicate the groups' conclusions and pass out a composite set to the class for future reference.

Conclusion. The success of small group discussion depends on many factors, some of which have been enumerated above. Perhaps the most important factor is the selection of transportation consumer issues for discussion that really do concern students. Students should, therefore, help decide what these should do.

Class Discussions

Normally, if a class can profitably discuss a controversial issue as a class, it can discuss the issue more profitably in small groups. Therefore, whenever possible, use small group discussions.

Class discussions are useful, however,

- when a previous activity requires a follow-up discussion to synthesize what took place. For example, a role-play always need follow-up discussion so that different students' perceptions, interpretations, and feelings about what took place can be aired and summarized. Small group discussions also should be followed by class discussion so that students can learn and comment on what occurred in other small groups;
- when it is felt that the discussion topic is complex and needs teacher guidance to assist students as they discuss it; and
- when there are not enough talkative students in the class to make active small group discussions feasible.

When these conditions prevail, there is a type of class discussion that can be particularly effective in a curriculum that deals with controversial areas like attitudes toward transportation. This is student-directed class discussion. In this type of class discussion, students are trained to address their comments to each other rather than to you. When, for example, the teacher asks whether wearing safety belts should be mandatory, and one student disapproves, the next student's comment should be directed at this previous student. In this manner, but at first with constant reminders, the teacher can moderate a discussion so that students communicate with each other. If the teacher chooses to adopt this approach, make it explicit to the students by telling them to direct their comments to each other before the discussion begins and reminding them to do so whenever necessary. The teacher will soon be able to encourage direct student-to-student communication with a forgetful pupil by a mere wave of the finger in the direction of the other student in the discussion.

The teacher can moderate this kind of class discussion as he or she sees fit, preventing excessive domination by a few students, pointing out circular arguments, and disallowing excessive unproductive irrelevances.

At the end of a class discussion (unless the class discussion was itself a summarizing activity), students should summarize orally or in writing the major points about transportation consumerism that have been made and the teacher should give his or her general impression of what was achieved.

Class discussions are also useful when there is a class consensus on what could or should be a controversial issue, or when most or all students in a class take a certain point of view for granted and have never examined its underlying rationale. Examples outside the field of transportation include the "superiority" of monogamy, monotheism, capitalism, and the nuclear family. Examples in the field of transportation include

- assuming that cars cannot be banned from central business districts;
- assuming that bicycles are an impractical way to commute to work;
- assuming that public transportation cannot be offered to the public free;
- assuming that the public can have no influence over the decisions of politicians on major transportation issues;
- assuming our resources of fuel will last forever or that when a crisis does occur the government will solve it somehow; and
- thinking that pedestrians have no real safety problems to be concerned about.

When a consensus exists on a transportation issue, the teacher can provoke a stimulating class discussion by playing devils' advocate and telling his or her class, for example, "Cars should be banned from the central business districts." As students formulate their rationales--and different students may have very different rationales--the teacher can force them to probe deeper and deeper into the foundations of their beliefs. The purpose of this approach is not, of course, to create confusion in the minds of pupils but to require conscious and substantiated rationales for holding strong positions on transportation consumer issues.

The teacher may need to make clear to the class that he does not necessarily believe in the position he or she is advocating to prevent misunderstandings that may result in parent complaints.

FIELD TRIPS

There are several kinds of field trips students can take that involve transportation but they have enough points in common to warrant some general comments. These comments apply to solo, small group, and entire class trips.

Field trips are a useful learning experience in a transportation consumer curriculum because they can

- enable students to explore a part of the real world and thereby make explicit the relevance of classroom activities on transportation to real-life transportation issues;
- provide more accurate in-depth information about transportation consumption than many secondhand sources, and
- put students in contact with transportation consumer information sources that may arouse or reinforce an interest or concern.

Where To Go On Field Trips for Transportation Consumer Education

This depends largely on the availability of community resources, transportation and time. Some good field trips classes or small groups can go on include

- American Automobile Association (AAA)
- Automobile manufacture plants
- Airports
- Subway systems
- Automobile dealers in used and second-hand cars
- Insurance institutions
- Banks--credit and loan departments
- Advertising agencies
- Private, nonprofit consumer protection agencies or groups
- Ambulance companies
- Harbors
- Train stations
- Household shipping companies
- Tourist agencies
- Bus terminals
- Taxi companies
- State and local agencies, such as
    - -- environment protection
    - -- transportation
    - -- turnpike authorities
    - -- consumer protection (usually housed in the Office of the Attorney General)
    - -- department of public works
- Freight terminals

Many cities and school districts provide a list of companies and agencies that encourage field trips, including times of availability and number of students desired. It is worth contacting your State Department of Education, local Superintendent of Schools, or state or local audiovisual department to see if such a list has been compiled. Some localities that provide lists are

Los Angeles City Schools
Baltimore City Public Schools
Cuyahoga County Schools (Ohio)
Antioch Unified School District (California)
Marin County Schools (San Rafael, California)
Washington, D.C. Public Schools
Milwaukee Public Schools
New York City Public Schools
Schenectady City School District (New York)

A variation of field trips that dispenses with both teacher supervision and extra travel is observing. Students can be given weekend or overnight assignments to observe a variety of phenomena that relate to different transportation consumer issues, such as

- transportation advertisements on television, radio, billboards, trucks, etc.;
- pollution caused by various modes of transportation;
- dangers of different transportation modes;
- how people commute to work and what attitudes they seem to exhibit while commuting;
- special mobility problems of the transportation disadvantaged;
- transportation needs and problems of tourists; and
- consumer congestion--where it occurs and why.

GAMES

Educational games harness the student's natural motivation to "play" and direct it for educational purposes. A game is a contest between adversaries (players) who act under constraints (rules) to achieve an objective (win). The player's "business" in a game is simply playing it to win; in educational games, learning is a natural by-product. The reason for this is that in order to play the game, players must learn the rules. Educational games are constructed so that the rules simulate a real-world process. Thus, by learning the rules of the game, players learn the process that is being taught. For this reason, educational games are highly motivating; initially, a student need not even be interested in the subject at hand so long as he enjoys playing games.

There are several types of educational games, including role-play games, board games, and drill games.

- Role-play games are used to teach processes involving much negotiation, compromise, conflict, etc.--in general, human interaction. They differ from role-plays, however, in that they are usually more structured (focusing on processes, not simply situations) and a winner (or several) is identified.
- Board games closely resemble commercial entertainment games in the paraphernalia they utilize (chips, boards, play money, etc.). They are applied to processes which benefit from graphic representation, such as automobile manufacture or urban development.

Most games are hybrids, in that they utilize role-playing and boards, charts, etc., to record the progress and outcomes of human interactions.

- Drill games are placed in a separate category because the rules of the game do not necessarily simulate real-world processes and issues. Rather, the basic element of competition, common to all games, is utilized for motivational purposes in teaching or reviewing facts and concepts. For example, a game distinguishing good and bad travel behavior is a motivating way of teaching or reviewing the subject. Drill games generally utilize boards, cards, and other paraphernalia, although the spelling bee is a classic example of one that does not.

Utility of Game Play for Transportation Consumer Education

- Educational games (even drill games) involve decision making, a necessary skill in the development of responsible attitudes toward and use of transportation products and services. Games encourage students to weigh the consequences of alternative decisions and develop effective strategies for winning. An important follow-up to game play is the discussion on why students acted as they did, why strategies proved effective, and what influenced them to choose one course over another. Students thus have the opportunity to practice decisions without actually having to suffer real-world consequences.

- Educational games compress time and experience and therefore expose students to more decision-making opportunities sooner than they would face in real-world situations and, most important, provide quick feedback on how effective their decisions were.

- Games are motivating. Most students play to win. Therefore, drill games especially lend excitement to what might otherwise be boring review exercises. Games also can serve as springboards for further study.

- Games are "self-evaluating." Poor game performance can suggest to the teacher the need for further play (review) or other forms of reinforcement of learning (or both). Although it is not their primary application, games can thus represent a diagnostic and evaluative tool. Another aspect of this is that effective game performance means success in the game. Students, by winning or doing well, are rewarded intrinsically, rather than extrinsically by the teacher.

- Games provide special opportunities to learn and to perform well for students who have poor reading skills or other learning handicaps. Written information is often minimal; what is included must be utilized for successful game play. Motivation to read is thus built in since students need the information to play the game. Students who consistently fare poorly in conventional classroom activities often do well in games because effective strategies, whether arrived at by conventional or unconventional methods, or skills normally not cultivated in class (such as negotiating) are rewarded. Thus, games often motivate previously apathetic students to improve poor student self-image and do better in nongame activities as well.

- Games integrate students of diverse ability levels and encourage peer learning. Students learn the rules of the game from each other as they play and pick up good strategies from other players.

- Games are self-playing. They require minimal supervision by the teacher. As players learn the rules, they learn the subject, or process, or facts. Also, players police each others' actions in their own self-interest. Permitting an incorrect move by another player can cost a player the game. Thus, students learn not only from their own moves but from close observation of those of other players.

- There is usually no single right answer. Players must therefore experiment with many alternative strategies and decisions to discover which are effective under what circumstances.

Teaching Classroom Games

Introducing a game

- Display each different item of the game materials to the group(s) before play commences and explain the function of each very briefly.

- Assign roles (where appropriate) and distribute rules and other materials to players. Where a game involves a few players, assemble several groups of players and distribute a set of game materials to each. Simultaneous play by the entire class is desirable, because if any one group plays, the rest of the class will generally want to watch rather than participate in other activities.

- Consider mixing students of different ability levels, particularly if teams of players perform as one actor. Slower students will learn from more able ones. Where a game calls for each player to act as an individual, the teacher may wish to keep the ability levels fairly close so that one or a few players are not at an obvious disadvantage.

- Demonstrate some sample game moves by asking one or a few players to select their first action.

Moderating play

- Circulate among the players, and clarify rules if they ask questions. Where possible, encourage students to come to their own decision about an ambiguous rule in terms of what would be logical and accurate for the process under study.

- Resist the temptation to correct a student about to make an incorrect or poor move. The game itself penalizes errors and rewards correct or effective moves. Students must experiment and make decisions in order to learn from the game.

- If play is slow, the teacher might suggest a move or a strategy to a player or a group to catalyze the action. Encourage experimentation but avoid suggesting all the options. Leave that to student exploration.

Post-Game Follow-Up

- Determine the winner(s) of the game according to the scoring rules provided. Usually, players are rated on a continuum, so that instead of one winner and many losers there are gradations of effective players. Thus, it is unlikely that many individuals will feel themselves the losers and be hurt thereby. Winners in different groups can be announced to the class and can be asked to compare strategies.

- A good way to begin discussion is to ask the winner what he did that was particularly effective, or, in other words, why he thought he won. Ask students what they would do differently next time, what was their best move, worst move, etc. To synthesize the actions in a game, start with the concrete details of play. Rather than asking "what did you learn" (the usual response is "nothing"), ask "what did you do."

- Next, move on to analyzing the alternative decisions available to players, the consequences of various decisions, influences on the particular decisions they made, etc. This leads directly into discussion of issues in terms that are defined more broadly than the specific details of the game.

- Encourage students to change the rules (or other items) in the game that they feel are inaccurate or that represent interesting variations or questions about a process.

- You may wish to stage a class "play off," or even one for the school at large if more than one class is working with the same transportation unit at the same time and if the game may be profitably replayed. (Some games, particularly review games, can be learned *in toto* and would not offer new learning to players who mastered them. These are games with a finite number of facts under review and are probably not profitably replayed.)

- You might put your best players against some parents or other adults in order to demonstrate to both groups how much transportation information was learned.

INDEPENDENT STUDY

Independent study, when it flows from student concern, can be one of two or three best forms of classroom activity in a transportation consumer education curriculum because

- Since students are bound to have different concerns, it enables different students to pursue transportation subject areas that pertain specifically to these different needs and concerns. Activities in which an entire class must participate may ignore the needs and concerns about transportation of some and perhaps most pupils. Independent study can help to eliminate this handicap to teaching a transportation curriculum.

- It enables different students with different resources to pursue their concerns about transportation in ways that fit in with their learning abilities.

- It enables students to make their own decisions both about what transportation topics they study and how they study them. Decision making by students in areas affecting their own education is crucial to

  - the development of decision-making skills and the nurturing of feelings of competence and

  - motivating students to learn about what concerns them.

- It frees the teacher to devote more personal and in-depth attention to individual students.

- Students can pursue their concerns about specific transportation issues in greater depth than in classroom activities because they are free to do research using a variety of approaches (polls, reading, interviews, etc.).

- Independent study is the most sensible mode of study for certain types of pursuits, such as poll taking, peer teaching, and interviewing.

INTERVIEWS

Interviews can be an integral part of a transportation consumer curriculum because

- There are many fascinating and informed people in this field of study who are very responsive to the inquiries of students (see page after next for potential interviewees).

- This is an excellent way to obtain firsthand information from people who have experienced transportation consumer problems or been in direct contact with those who have.

- There are a variety of opinions on a number of transportation consumer issues with strong spokesmen for them all whom students can listen to and question about the bases for their beliefs.

When preparing students for a transportation interview, the teacher should

- Allow as many small groups or individual students as are interested to conduct interviews and compare findings.

- Require the students to study the appropriate transportation literature about their chosen topic in advance so that they can then draw up a list of critical questions to ask. Some of these questions may seek factual information, but questions, when possible, should deal with areas of controversy or difficult-to-obtain information. Neither the interviewee's nor the students' time should be wasted on questions that can be answered by glancing at a transportation source book.

- Encourage students to ask other students in the class what questions about transportation they would like to see answered.

- Contact the interviewee, arrange for an appointment, and request permission for students to bring a tape recorder or, barring that, to take written notes or arrange for interviewee to come to the school.

- Mention that how students dress for and how they behave during the interview is their business but to keep in mind that these factors can influence the success of their interview and the potential for future interviews with that source.

- Encourage students to begin the interview by asking the interviewee his exact title, position, and duties. This information is useful to gain an idea of how much credence to place in the interviewee's statements and to help students through the nervous first few minutes.

- Instruct students to take independent notes during or immediately after the interview since one "reporter" may not be able to write down everything that is said and different students may interpret what was said differently.

- Encourage students to ask critical but polite questions that probe inconsistencies, hypocrisies, unaccounted-for results, successes, and failures.

Upon completion of an interview, the students should

- Evaluate the results in such terms as
  - What transportation consumer topics did the interviewee seem most informed about? Why?
  - What new information and ideas about use and purchase of transportation services did you learn?
- Report their findings and critical interpretations to the class. These reports should always include the groups' opinions about what they learned.
- Write up their findings into an article for submission to the school and local community newspapers, if there is time. Permission should first be obtained from the interviewee.

One other type of interview students can conduct is the telephone interview. If interviewees are too busy or inaccessible for person-to-person interviews, they may be agreeable to answering questions over the telephone by appointment secured in advance. Students may also want to interview several interviewees to compare opinions or attitudes and can use the telephone for this purpose, too.

Individuals that students may want to interview include

- Truck drivers, taxi drivers, bus drivers, train conductors, pilots, boat captains, hitchhikers, snowmobilers, and ambulance drivers;
- insurance and loan company employees;
- leaders of environmental protection groups;
- garage mechanics and bicycle repairmen;
- employees of household moving companies;
- employees of travel agencies;
- the transportation disadvantaged, including youth, the handicapped, rural poor, and the elderly;
- newspaper editors and reporters;
- parents; and
- advertising monitors and writers.

See also on page 280 a list of agencies whose officials can be interviewed.

LECTURES

Teacher Lectures

In a curriculum on transportation consumerism the lecture technique should be used sparingly. It should not be used to moralize because moralizing is usually not effective and, in any case, is not the teacher's role in a consumer curriculum. In addition, many students find lectures on consumer issues boring and learn poorly from them. They learn about transportation consumer issues more effectively from classroom methods in which they actively participate.

Lectures by teachers can, however, serve a useful function in a curriculum on transportation when used selectively and infrequently. Lectures can be useful when

- Students need or want to know certain transportation consumer information that cannot be learned as effectively in any other way (e.g., technical information that requires questioning, backtracking, and rewording--for example, explaining the Highway Trust Fund) and when
- The teacher is an unusual resource and has had first-hand transportation experience that students would like to share (e.g., he or she was a car mechanic).

Lectures, when used, can be made more productive if

- They encourage and solicit questions and discussion at any point;
- They are short;
- Their utility is explained in advance to the students;
- They involve use of audiovisual materials, such as an overhead projector, slides, blackboard, or tape recordings;
- They are accompanied by a brief outline for students to follow and add notes to; and
- They utilize relevant examples and illustrations that relate the transportation topic to the students' lives.

Guest Lectures

Presentations by transportation experts and other outsiders can be very informative and stimulate lively discussions. When feasible, it can be useful to have two guests representing different points of view on transportation consumer issues question one another in front of the class. It is not necessary that these speakers be objective or impartial; indeed, one of the best methods for stimulating class discussion is for a biased, even polemical speaker to present his particular point of view to the class, provided students are given an opportunity to question him.

PEER TEACHING

Students teaching other students is one of the most productive and exciting learning processes available to schools. Most teachers at one time or another have noticed students helping each other with homework and other academic problems. In an effective classroom some student-teaching-student activity is always going on, usually in discussions. This approach can be used systematically and becomes very useful in a transportation consumer curriculum for a variety of reasons because

1. The students being taught often learn more efficiently that they otherwise might because
    - They often trust other students' opinions and statements in controversial areas like use of transportation services and products more than they trust those of adults and are often more willing to express their own opinions more candidly in front of each other than to a teacher.
    - They can often understand other students' explanations better than they can those of adults since the other students speak the same language and, more importantly, have recently gone through the learning process themselves.
2. The students doing the teaching gain new insights into the issues involved and are prompted frequently to do more research and thinking in response to student-learner questions and comments.
3. All students involved come to realize that they have resources that they can tap and skills they can share. This facilitates and promotes learnings about transportation consumerism in all areas.

When older students teach younger ones, there are usually scheduling, administration, and sometimes parental concerns about this approach that need to be dealt with to make it successful. These concerns and how they are handled will vary according to each particular school and community. Once they are met, both the lower grade and the senior high or college or adult teachers involved will need to consider certain other factors:

1. The teacher-students must volunteer for the assignments. Compulsory teaching assignments usually produce poor results.

2. The teacher-students must have a clear idea of

   - What they are going to teach about transportation consumerism. This should involve questioning the student-learners to discover their concerns about transportation.

   - How they are going to teach. Options include

     one-to-one tutoring
     small group discussions
     team teaching
     written materials, homework, etc.

   - What their relationship to the student-learners should and should not be. Options include

     authority figure
     primus inter pares
     pal
     older brother or sister
     counselor

   - What the alternatives are to coping with and helping student learners who start to raise personal transportation consumer problems with them.

3. The students must have a reasonable grasp of the transportation content area and issues involved prior to teaching, but they should not feel they have to be experts in order to help others to learn.

POLLS

Polls and questionnaires can be extremely useful and exciting activities in a transportation consumer curriculum. By administering, collating and interpreting polls on transportation issues students can

- learn about attitudes toward, beliefs about, and consumer behaviors with transportation in a realistic and meaningful way;

- learn about the difficulties in discovering and measuring transportation consumer attitudes, beliefs, and behaviors;

- learn to make and understand correlations and thereby realize that opinions and behaviors on transportation issues can be dependent on age, sex, ethnicity, and other factors;
- learn about alternate attitudes, beliefs, and behaviors about transportation issues that they might not have been aware of, and
- learn how to judge the validity of some of the statistics about transportation use and abuse.

Construction of Polls

Students should be encouraged to develop their own polls or questionnaires. They may be interested in a poll's results because they will provide additional information for a research project or simply for its own sake. Students can formulate their own questions but should be cautioned to consider several factors, including

- phrasing questions in the way most likely to get an honest response in this potentially "touchy" area;
- avoiding questions that require a written response (respondents are often pressed for time, lazy, or afraid of hand-writing detection);
- avoiding too long a poll (for the same reasons);
- assuring respondents of anonymity and seeing to it that the poll in fact cannot reveal names;
- investigating desirable or interesting relationships, such as sex, race, age, economic status, and political preference. These relationships, when tabulated after a poll has been taken, are called correlations (e.g., there is a positive correlation between economic position and use of airplanes; that is, more middle- and upper-class people take plane trips than do lower-middle- and lower-class people);
- selecting the proper sample of people to be interviewed so that these correlations can be made. If students want to see if women tend to wear safety belts more often than men, they must be sure to include enough men and women in their poll to make it possible for them to learn this;
- deciding to whom to administer the poll and how it should be administered;
- deciding how many people should be polled (both conducting the poll and tabulating correlations by hand can take hours);

- testing the poll on the rest of the class to remove the "bugs," such as confusing questions or too limiting a choice of possible responses to check or circle; and

- learning what a "representative sample" is, such as 10 percent of the school body; or .01 percent of the community--that is, a sample that is large enough to permit the poll taker to generalize about the whole school or community.

Administration of Polls

How honestly a transportation consumer poll is answered may depend on how it is administered. Some student respondents may be more honest and serious if the poll is administered by other students rather than by a teacher. On the other hand, faculty may answer more honestly if they are given the poll at a staff meeting by the teacher rather than if students stuff their mailboxes with the poll. Sometimes it is most effective to have a principal or dean administer the poll to the faculty. Students can also take polls home to their parents or knock on doors.

Tabulation and Interpretation of Polls

Students may need help drawing up a matrix to record their correlations. The teacher should see to this immediately before students have wasted much time doing unnecessary or useless tabulations. Sample matrices are provided on the following page.

	Men	Women	Democrats	Republicans	Independents	Ages 15-17	Ages 18-21	Over 21
Favor no bicycle registration								
Favor bicycle registration but no driving test								
Favor driving test but no bicycle registration								
Favor both bicycle registration and driving test								

Favor bicycle registration:

	Men	Women
Democrats		
Republicans		
Independents		

Students need to be reminded that polling statistics rarely explain why certain people hold certain attitudes and beliefs or act in certain ways. It is the researchers' job, in other words, to interpret the findings.

When one or more small groups have conducted the poll, it should explain its results and interpretations to the rest of the class.

Sample Transportation Consumer Poll Topics

These include

- knowledge of consumer protection laws in general or in specific areas, such as moving household goods, automobile warranties, credit arrangements, etc.
- what people feel is and is not responsible consumer behavior, for example, use of shoulder harnesses in automobiles, drinking and driving, riding bicycles in the dark without reflectors;
- people's attitudes toward transportation consumer education;
- people's attitudes about how much automobile insurance they should carry;
- people's attitudes toward car mechanics, bus drivers, taxi drivers, airplane pilots and stewards and stewardesses, truck drivers, hitchhikers, and snowmobilers;
- people's information about and attitudes toward consumer protection groups such as those sponsored by Ralph Nader;
- the extent to which people take safety precautions in their travel behavior, such as using safety belts, riding bicycles with reflectors and wearing light-colored clothing, using life preservers when boating, not accepting rides from suspicious drivers when hitchhiking, not jaywalking, driving cars with bald tires, driving after abusive drinking, idling cars in enclosed spaces like garages, staying in one's seat on school buses until the bus stops;
- the public's level of knowledge about and concern for the environmental impact of automobile and airplane use;
- the public's interest in providing special transportation facilities to meet the needs of: the transportation disadvantaged, bicyclists, pedestrians, motorcyclists, carpools, special bus and other rapid transit lanes during rush hours;
- the extent to which the public is willing to pay the additional costs and inconvenience of preventing automobile pollution, such as

using cars less frequently and paying higher car prices for pollution control equipment; and

- common traveler complaints about various modes of travel, such as baggage delays with airlines, traffic congestions with cars, lack of bikeways for bicycles, lack of crosswalks for pedestrians, infrequent hours of train departures.

Sample Poll Format

This is a poll drawn up and conducted by students at ______________________ School. It is being used as part of a course of study on transportation consumer education. We would appreciate your honest answers to the following questions. Please do not sign your name. Thank you.

Age: (Circle appropriate age level)

under 15 15-17 18-21 over 21

Sex: (Circle appropriate sex) Male Female

Circle response with which you agree most.

1. Hitchhiking should be permitted anytime, anyplace.

   Agree Disagree

2. People who pick up hitchhikers should be fined.

   Agree Disagree

3. People caught hitchhiking should be fined.

   Agree Disagree

4. Hitchhikers and people who pick them up should both be fined.

   Agree Disagree

5. Etc.

Follow-up Activities

- Students can read other polls of adults and high school students and compare them with both their own questions and their own findings.

- Students can submit their findings in article form to the school or community newspaper.

READING

Written materials can be of great value in a transportation consumer curriculum. Students can read content readings for factual information that can then be analyzed in class or small group discussions. Other ways to utilize content readings that are particularly useful in this controversial area are for students to

- Read the same assignment and then break into small groups to discuss the answers to specific questions about the reading.
- Read different sources on transportation consumerism and then meet in small groups and discover and record areas of agreement and disagreement among the different sources.
- Read what classmates have written in research papers and other assignments. This type of reading activity is explained in more detail on page 272.

A list of suggested student readings may be found in the Bibliographies. Frequently a teacher can purchase one copy and have the appropriate page duplicated for class use.

RESEARCH AND REPORTS

Report writing is particularly useful in transportation consumer curriculum for

- giving more depth and meaning to research by organizing and articulating it into a written report;
- stimulating critical and intensive thinking about transportation consumer issues by demanding a high-quality final product; and
- training students in methods for finding answers to significant and controversial transportation consumer questions.

Ideally, students should be allowed to suggest and report on areas of transportation consumerism that concern them. The teacher can provide a list of suggested topics.

Places and agencies to contact that may offer research possibilities (literature, interviews, etc.) include

I. State and City Government Agencies

- advertising
- corporations
- education
- insurance
- labor and industrial
- liquor control
- motor vehicles
- police
- taxation
- youth services board

II. Local Civic Groups

- Chamber of Commerce
- veterans' organizations
- civic groups (League of Women Voters)

III. Miscellaneous

- newspapers
- professional organizations, such as the American Automobile Association, the Bicycle Institute, the National Safety Council
- yellow pages
- companies
- embassies, consulates

Students should be given a set of written instructions on report researching and writing that consider the following areas:

1. Documentation: All direct quotations must be footnoted; excessive direct quotations should be avoided.

2. Length: Length should be left up to the student. A report on transportation should be as long or as short as is necessary to say what needs to be said.

3. Footnotes and Bibliography: Reports should footnote all quotations by author, title, place, and date of publication. The purposes of footnotes and a bibliography need to be stressed: to enable the reader to both verify the accuracy of the statements and to find further literature references for pursuing his own interests.

4. Charts: Students should be discouraged from wholesale chart and diagram copying unless the chart is useful and a written interpretation of what the chart signifies is included.

5. Original Thinking: Students should be required to include, wherever appropriate, original thoughts they have and personal opinions on controversial areas or contradictory factual statements they have read or heard. Since one of the major purposes of all reports should be to stimulate analytical thinking, such critical thought should be made a major focus.

6. Sources: Students should be taught to go beyond the use of encyclopedias in conducting their research, to use other reading materials and research methods (interviews, polls, etc.). While frequently written by experts, encyclopedias offer only one perspective on a problem, while much of the information needed in a transportation consumer curriculum may not be up to date or found at all in encyclopedias.

Upon completion, research papers should be read by the rest of the class or by those students who are interested in the area researched. If the report was worth writing, it should be worth reading. Although some students may write very poor reports, they may still be worth reading so that other students can suggest ways to improve them.

Students can read each other's written work outside of class time if it is placed in the school library and kept on file to prevent loss. Students should be given a chance to discuss in small groups, centered around topics of common interest, their report.

ROLE-PLAYS

Role-playing is an extremely valuable method of learning used all too infrequently in the education process. When implementing a curriculum intended to alter students' behavior and attitudes, role-playing becomes almost indispensable.

Essentially, role-playing is an activity in which one person pretends he or she is someone else and acts in the way he or she believes that other person would act. Thus, a student can act as if he or she were a parent, a legislator, or a bicycle purchaser--that is, play the role of these other persons.

Utility of Role-playing for Transportation Consumer Education

1. Role-playing offers an unusual opportunity to promote understanding and empathy between types of people who often have difficulty communicating effectively with one another, such as consumers and salesmen, citizens and politicians, employers and employees, parents and children, and teachers and students. In transportation consumer education, students' understanding of the problems and attitudes of passengers, salesmen, bicyclists, politicians, transportation planners, citizens, parents, and other groups can be promoted by role-playing these people. When students get involved in these roles by acting them out they gain an insight into these peoples' problems and feelings that is difficult to achieve as profoundly in other ways.

2. Role-playing allows students to experiment with roles and personalities which may be unnatural to them in real life (due to lack of confidence, peer pressure, etc.). For example, the extremely shy girl who plays the role of a very outgoing girl her own age may get an opportunity to forget momentarily her shyness and experiment with a new role. Role-playing allows students to "try on" personalities and roles in a nonthreatening situation.

3. Role-play confronts participants with the necessity for making decisions and attempting to influence people about transportation issues and enables them to see some of the possible repercussions these decisions and attempts to influence people may have without having to suffer the actual consequences.

4. Role-play encourages the development and expression of feelings about transportation. This is particularly important in a curriculum dealing with an emotionally charged area such as automobile use and pollution.

Designing Role-plays for Transportation Consumer Education

When to use role-plays. Role-play is most appropriately used to illustrate and explore relationships involving problems between people about transportation and their attitudes toward transportation issues. Some examples of problem situations that lend themselves well to role plays are

- politicians or community workers deciding how to allocate funds for transportation needs;
- students faced with decision of riding with a drunken driver;
- automobile salesmen trying to make a "good deal" with a customer who is trying to be a wise purchaser (or a variety of other

salesman-customer role-plays, such as bicycle, boat, camper, and snowmobile purchases and arrangements for insurance, credit, moving household goods, and getting cars or bicycles repaired);

- environmental groups confronting automobile and airline industry representatives with complaints about pollution or confronting state or Federal environmental protection agencies with demands that automobile and airplane pollution be curbed;

- automobile enthusiasts disagreeing with bicyclists, motorcyclists, or pedestrian advocates on the best way to commute to work (car pool advocates can be included, also);

- community groups confronting airport expansion lobbies about proposed airport expansion into residential zones; and

- hitchhikers disagreeing with state legislators who want to outlaw hitchhiking on freeways or throughout the state.

How to write role-plays. The most important task in role-play is getting people emotionally involved in their new roles. To help achieve this, the teacher must provide the student with a written "role profile" or description of the person whose role he or she will adopt. This role profile should

- be as brief as possible;

- be written in the second person ("You believe you have just been cheated by a household goods moving company," not, "The person you are playing thinks he has just been cheated by ....."); and

- be given to students in advance of the actual role-play if research or familiarity with the part is necessary.

The role profile should include enough concrete details so that the role is clearly structured and focused and the student understands the character he or she is to portray. To ensure this, the role profile should provide the student with

- the motives and goals of the role ["You want your husband (wife) to wear a safety belt whenever he (she) drives"];

- obstacles in the way of achieving your goals ("Your spouse claims safety belts ruin his/her clothes"); and

- enough incidental information about the person to make him or her seem real to the student ("You are 42 years old and have been in one serious car accident in which...").

How to write a "scenario." A scenario is a capsule history of the events that preceded the situation that is going to be role played. The scenario contains all the information that is common knowledge to all players. The last sentence sets the stage for the action of the role-play. ("The driver has just turned on the car engine and notices his/her spouse has not fastened the safety belt.") Students or teacher can write their own or take a story and omit the ending, with the students role-playing possible completions.

Teaching Role-plays

Introducing role-playing to students

- A good way to introduce role-play is to have students respond in writing to several scenarios taken from newspapers, articles, or books or created by the teacher or other students.
- Another good way to introduce students to role-play is to conduct "practice" role-plays to familiarize them with the concepts and process involved.
- Begin by explaining to the class what role-playing is and what it is intended to accomplish in a transportation consumer education curriculum. Give an example.
- Practice with a sample role-play in which students play their parts from their seats, using dialogue and no action. In fact, if students are unable to act out role-plays even after several attempts, in-seat role-plays can often be profitably used. In addition, students can use hand puppets for role-plays if they are uncomfortable playing parts themselves.

Moderating a classroom role-play activity

- When introducing an actual role-play activity, begin by passing out or explaining the scenario to the whole class.
- Ask for volunteers to play the roles. The teacher should avoid selecting students who volunteer to play roles that may be too emotionally upsetting for them--for example, letting a student with an alcoholic parent play the role of a drunk driver.
- Pass out the appropriate role profiles only to each participant.

- Before any action takes place, the teacher should instruct observers to save all comments and questions until the role-play is over. Observers should be instructed to think about how they would act were they role-playing.

- Before the action begins, the teacher must instruct participants that they have the right to call a "cut" in the action anytime they want without having to say why. This is to allow participants who feel they are getting too emotionally involved an easy "out" from what may, on rare occasions, be an unpleasant situation. The teacher also needs to be alert to the action and feelings of the role-play and should not hesitate to call a "cut" if he feels the role-play is arousing too much anxiety.

- While action is in progress, the teacher should not inhibit it by commenting on or altering the action.

- The role-play ends when the participants have reached a logical ending point or the teacher cuts the action because it is dragging or has become irrelevant.

- Observing students can participate in longer role-plays as reporters who write down or later verbally describe what they saw and heard, comparing their accounts with each other and with what the role-players felt occurred.

Following up a role-play

- Students can repeat the completed role-play as it stands with different participants or with a new scenario or role profiles.

- Students should be encouraged to develop and use their own role-plays and scenarios. Once attuned to the technique, students can often create role-plays and scenarios about transportation issues that contain a realism and relevance that the teacher may find difficult to attain.

- When an individual or series of role-plays are over, the teacher should focus in the ensuing discussion on

    - what the students' feelings were as they role-played.

    - what their attitudes were toward the other players.

    - what different actions the observers might have taken were they in the role-play.

    - what the participants learned about the role they were playing and about the other roles.

- The teacher should avoid giving his opinion of whether the role-played solution was "right" or "wrong" but concentrate instead on eliciting alternative solutions.

VOLUNTEER WORK

Learning by doing is a potent educational approach. One way to "do" is to engage in volunteer work. Particularly in areas of human behavior such as consumer behavior, classroom learning is made more real and meaningful if it is accompanied by real-life experiences in the area. Teachers should encourage students to engage in volunteer work and inform them

1. That volunteer work, in addition to its altruistic dimension, can be personally useful as
    - a learning experience about human nature and problems;
    - an opportunity to learn an enormous amount about oneself; and
    - a way to make classroom learning about transportation consumerism more meaningful.
2. That volunteer work is desperately needed by individuals with transportation problems and by agencies seeking to help these people.
3. Of what public and private agencies in the community dealing with transportation problems need student volunteers and what kind of work is involved with each.
4. Of the type of work they can expect to do. The work expected of them may often be menial, but there will still be plenty of opportunity for students to learn about and observe transportation problems.

Teachers should also

1. Give students some form of academic credit for volunteer work, such as less homework, a grade, or free class time.
2. Require students to keep a log of their activities and thoughts about their volunteer work but not require that it be turned in if the student feels it is a personal document.
3. Ask students to report to the class on their work at least once.
4. Ask students to write articles about their work for submissions to the school and community newspapers.

WRITING

It is important for students to write frequently in a transportation consumer curriculum for two basic reasons:

1. Writing stimulates intensive, creative, and critical thinking about issues in a way that for some people is difficult through verbal interchange.

2. Writing creates an opportunity for students to read what their classmates have written and this in turn helps make them aware that students have important, interesting and informative ideas to communicate.

In a transportation curriculum there are several useful writing modes for students to engage in:

1. Position papers stating and defending their stand on a transportation consumer issue.

2. Imaginary "Handbooks" that offer guidelines and opinions on laws, suggest ways to improve public transportation facilities, or indicate desirable courses of action to agencies and institutions.

3. Imaginary dialogues and interviews between individuals with opposing points of view on transportation issues.

4. Reports.

5. Autobiographical and biographical narratives, both real and fictional.

6. Story beginnings, middles, and endings.

Since the major objective of this type of writing is to elicit student feelings and opinions, the teacher may want to explicitly inform students that grammar and spelling will not matter in this exercise. Attention focused on these areas will often distract students from the transportation issue being discussed and inhibit them from expressing their real opinions and feelings on future written exercises. Rather than risk criticisms of spelling and grammar errors, many students will often write very little or only words they are sure they can spell, or both.

Teachers should avoid commenting on students' opinions on transportation issues in such terms as "that's a good idea," "good," "I agree," "I think you're wrong." When this is done students become habituated to writing opinions and ideas they think the teacher wants to read, rather than what they truly believe. However, students do need to be commended and corrected in terms of their argumentative techniques. Students should be criticized on the basis of

1. Whether they supported their opinions with logic and facts, or at least said their position could not be logically or factually defended.

2. Whether they took into account and "disposed of" arguments and considerations that run counter to their arguments and opinions.

3. Whether they have made untrue statements.

Student writing is most productive when teacher attention is focused on whether opinions have been adequately defended rather than on whether the teacher agrees or disagrees with them.

3. SUBJECT AREA CONSIDERATIONS AND CROSS REFERENCE

There are three approaches to teaching transportation consumer education.

1. It can be taught as separate mini-courses around specific transportation consumer education topics.
2. It can be integrated and taught in an existing course or subject area, like American history or English.
3. It can be integrated into and taught simultaneously in several existing courses, for example, social studies, math, and home economics.

1. A separate mini-course around specific transportation topics is a viable educational approach for teaching students to be wise users and purchasers of transportation goods and services. In many cases it is the only possible approach--as in centers for adult education, in some colleges, and in most clubs, church and social groups, and unions and cooperatives. For example, a union might teach a mini-course on bicycles as a form of urban transportation; a center for adult education might offer a course in automobile maintenance and repair; and a church group might present a course on the environmental effects of transportation.

2. At the junior high, senior high, and college levels, it is often most practicable to integrate transportation consumer education into a preexisting subject area or course. For this approach, teachers, curriculum coordinators, and students must decide what specific transportation consumer topics they want to teach and learn and into which subject area or course the selected topics can be effectively integrated. Some of the subject areas and courses in which transportation consumer education topics can be taught easily are

American history
art
business
driver education
English
health
home economics
mathematics

science and social sciences
  citizenship
  current affairs
  economics
  political science
  social studies
  urban studies

For example, a driver education teacher could (and should!) introduce consideration of drinking and driving issues into his discussion of driver safety; a college professor could include a discussion of public transportation problems in a course on urban studies; and a home economics teacher could discuss automobile insurance in relation to family finances.

3. Wise use and purchase of transportation goods and services is most effectively promoted when it is treated in a coordinated fashion in several subject areas simultaneously or consecutively. This method reinforces learning and emphasizes that transportation consumer issues are interdisciplinary. Furthermore, an interdisciplinary teaching approach encourages students to view and attempt to cope with transportation consumer problems from several diverse perspectives, including those of driver education, English, home economics, history, and business. This kind of approach is most feasible at the elementary and junior high levels, where individual teachers are usually responsible for teaching more than one subject area. However, even at the senior high, college, and other adult levels, teachers in two or more subject areas can coordinate their efforts to institute an integrated, cross-discipline transportation consumer education curriculum. For example, the ninth grade citizenship, English, mathematics, and science teachers could meet with students to determine their concerns about the use and purchase of transportation goods and services and then identify which topics, objectives, and activities relating to those concerns could be appropriately integrated into their respective course areas. If students were most concerned about bicycles, citizenship classes could discuss methods for planning and advocating bike paths and parking facilities in the community, English classes could help students write short stories and essays about various aspects of bicycling, home economics classes could concentrate on bicycle purchase, and health classes could introduce bicycle safety issues.

The following cross reference correlates transportation topics that can be taught and transportation consumer education objectives that can be achieved in the major subject areas. The relationships among the topics and subject areas are briefly noted. There is some overlap in topics and objectives among subject areas because several transportation topics and objectives are entirely appropriate to more than one subject area.

SUBJECT AREA CROSS REFERENCE

Subject Area	Topic	Objective	Relationship between Topic and Subject Area
1. American History	Environment and Transportation	Students demonstrate knowledge, skills, and attitudes about environmental problems caused by transportation in order to make responsible decisions about • what are the effects of transportation plans on the environment.	Students can research and discuss historical perspective on how the advent and expansion of trains, automobiles, and airplanes affected the environment beneficially and detrimentally.
	Public Transportation Problems	Students demonstrate knowledge, skills, and attitudes about public transportation problems in order to make responsible decisions about • what the public transportation problems are and • how public transportation problems can be solved.	Students can research and discuss the historical origins of America's public transportation problems and how they have been solved in the context of the growth of American cities and suburbs in the nineteenth and twentieth centuries.
2. Art	Automobile Maintenance and Repair	Students demonstrate knowledge, skills, and attitudes about automobile mechanics in order to make responsible decisions about • performing routine maintenance themselves.	Students can draw parts of automobiles in order to facilitate understanding of how repairs must be made.
	Collages can be created around virtually any transportation consumer topic; for example, collages illustrating special mobility problems, reasons people ride bicycles, safe and unsafe driving behavior, and transportation's effects on the environment.		

SUBJECT AREA CROSS REFERENCE

<table>
<tr><th>Subject Area</th><th>Topic</th><th>Objective</th><th>Relationship between Topic and Subject Area</th></tr>
<tr><td>3. Business Education</td><td colspan="3">Many of the transportation consumer topics may be practicably taught in business education courses in terms of merchandising of goods like recreational vehicles, bicycles, and automobiles and in terms of the business aspects of automobile insurance, goods movement, tourism, and the maintenance and repair of automobiles, bicycles, motorcycles, and recreational vehicles.</td></tr>
<tr><td>4. Driver Education</td><td>Bicycles</td><td>Students demonstrate knowledge, skills, and attitudes about bicycles in order to make responsible decisions about
● riding safely.</td><td>Students can discuss how to drive cars so as not to endanger bicyclists.</td></tr>
<tr><td></td><td>Pedestrians</td><td>Students demonstrate knowledge, skills, and attitudes about walking as a means of transportation in order to make responsible decisions about
● walking safely.</td><td>Students can discuss how to drive cars so as not to endanger pedestrians.</td></tr>
<tr><td></td><td colspan="3">Clearly, all safety aspects of automobile and motorcycle driving, including drinking, drugs, and driving, are appropriate to driver education.</td></tr>
<tr><td>5. English</td><td colspan="3">The reading of any source materials for any of the transportation consumer topics is appropriate in English classes. Sources can be compared in terms of presentation, style, economy of effort, clarity, and other literary criteria. In addition, story completions and creations on all of the topics are appropriate to English classes.</td></tr>
</table>

SUBJECT AREA CROSS REFERENCE

Subject Area	Topic	Objective	Relationship between Topic and Subject Area
6. Health	Emergency Vehicles	Students demonstrate knowledge, skills, and attitudes about emergency vehicles in order to make responsible decisions about ● which service to contact in an emergency and ● how to secure emergency service.	Students can discuss different types of health crises that require the use of emergency vehicles in terms of which vehicles are needed, why, and how to secure them.
	Environment and Transportation	Students demonstrate knowledge, skills, and attitudes about environmental problems caused by transportation in order to make responsible decisions about ● how, when, and where to travel and ● where to live.	Students can discuss what precautions they should consider taking in response to hazards created by air, water, and noise pollution, such as carbon monoxide poisoning from automobile exhausts.
	Special Mobility Problems	Students demonstrate knowledge, skills, and attitudes about special mobility problems in order to make responsible decisions about ● individual actions to alleviate mobility problems.	Students can research and discuss what kinds of physical conditions, such as paraplegia and blindness, may cause mobility problems and how these problems can be solved.

SUBJECT AREA CROSS REFERENCE

Subject Area	Topic	Objective	Relationship between Topic and Subject Area
6. **Health** (contd.)	Tourism and Intercity Travel	Students demonstrate knowledge, skills, and attitudes about tourism and intercity travel in order to make responsible decisions about ● when and where to travel; ● how to plan a trip; and ● how to take a trip.	Students can research and discuss tourism and health in terms of geographical areas to avoid because of health dangers (due to cholera outbreaks, etc.); precautions to take before traveling (e.g., inoculations, obtaining and becoming familiar with a first-aid kit); and precautions to take while traveling (e.g., not drinking local water, taking Dramamine).
	Pedestrian, automobile, bicycle, motorcycle, and recreational vehicle safety can all be discussed in terms of obvious health dangers and how to administer first aid.		
7. **Home Economics**	Goods Movement	Students demonstrate knowledge, skills, and attitudes about movement of freight and household goods in order to make responsible decisions about ● methods for moving goods and freight; ● choosing and hiring a moving company; and ● insuring personal property.	Students can research and discuss the expenses involved in different methods of moving household goods and freight and how to insure their goods for moving.
	Pedestrians	Students demonstrate knowledge, skills, and attitudes about walking as a means of transportation in order to make responsible decisions about ● walking safely.	Students can discuss what kind of medical insurance coverage to carry based partly on the danger of being in a transportation accident; for example, as a pedestrian.

SUBJECT AREA CROSS REFERENCE

Subject Area	Topic	Objective	Relationship between Topic and Subject Area
7. Home Economics (contd.)	Financial aspects of all transportation consumer topics can be discussed in home economics classes, including purchase, maintenance, and insurance of cars, bicycles, motorcycles, and recreational vehicles.		
8. Mathematics	Math problems can be created and solved around a variety of transportation consumer topics, principally ● purchase and insurance of cars, bicycles, motorcycles, and recreational vehicles; ● safety problems of vehicles related to breaking time, stopping time, perception, etc.; and ● choice of mode to travel based on how long it would take to travel by each mode and how much each would cost. For math problems revolving around transportation, see Bibliography entries 1, 20, 28, 133, 135, and 136.		
9. Science	Automobile Maintenance	Students demonstrate knowledge, skills and attitudes about automobile mechanics in order to make responsible decisions about ● performing routine maintenance themselves.	Students can study the principle of the internal combustion engine and other scientific data in relation to how an automobile works and can be repaired.

SUBJECT AREA CROSS REFERENCE

Subject Area	Topic	Objective	Relationship between Topic and Subject Area
9. Science (contd.)	Drinking, Drugs, and Driving	Students demonstrate knowledge, skills, and attitudes about drinking, drugs, and driving in order to make responsible decisions about ● when not to drive.	Students can perform a variety of experiments on the effects of alcohol and other drugs on driving ability, such as observing the effects of alcohol on fish or rats and comparing the rate of alcohol diffusion with that of food.
	Environment and Transportation	Students demonstrate knowledge, skills, and attitudes about environmental problems caused by transportation in order to make responsible decisions about ● how, where, and when to travel.	Students can perform experiments on the effects of cars, planes, and boats on air, noise and water pollution, such as measuring the level of pollution and determining the effects of pollution on plants.
	Transportation for the Future	Students demonstrate knowledge, skills, and attitudes about new transportation modes and needs in order to make responsible decisions about ● desirable transportation innovations and changes.	Students can develop and test experimental vehicles that incorporate features needed in future transportation facilities. Students can also modify existing vehicles so that they are better suited to meeting future transportation needs.
10. Social Sciences (citizenship current affairs economics political science social studies urban studies)	Most transportation consumer topics can be taught in one or more of the social sciences. For example, redress of grievances can be taught in citizenship; bicycle safety in current affairs; urban transit financing in economics; transportation planning in political science; special mobility problems in social studies; and public transportation problems in urban studies. To spell out the possibilities here would be lengthy. The interested reader can read the individual topics and objectives in the Activities Index and easily identify those that are appropriate to each social science discipline.		

4. MISCELLANEOUS BIBLIOGRAPHIES

The Miscellaneous Bibliographies section consists of five sections of materials for teachers and curriculum developers, including

a. General Consumer Education Teaching Materials;

b. General Transportation Literature for Teachers;

c. General Works on Consumer Behavior for Teachers;

d. Periodicals; and

e. Sources of Free and Inexpensive Additional Materials.

These Bibliographies are not intended to be definitive surveys of the field, nor have the materials listed in them been evaluated; rather, they are samples of the materials teachers can read in order to be effective instructors of transportation consumer education.

a. General Consumer Education Teaching Materials

1. THE VOICE OF THE TRANSPORTATION CONSUMER: EXECUTIVE SUMMARY, 1975. 108 pages. Catalog No.: PB 241764. $5.25.

Pamphlet /report This is a comprehensive and forthright report to the Secretary of Transportation on nationwide consumer public hearings conducted by the (Department of Transportation) Office of Consumer Affairs during 1971-1974. Presents in summary but highly readable fashion the results of 54 hearings conducted in 34 cities and towns. The report analyzes 1280 complete questionnaires received at the hearings. The report covers all aspects of transportation, but indirectly treats public transportation. A full report of the hearing results is also available and runs to 656 pages.

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22151

2. DYNAMIC CONSUMER DECISION MAKING, 1972. Grades 7-adult. Three-ring notebook; two cassette tapes; teacher's guide; 20 slides; assorted other elements. $11.50.

Guide Multimedia package designed to develop the student's ability to make wise consumer decisions. Most of the package is not devoted to transportation issues; however, three very good elements are. Unless a teacher can afford the entire package, plans to use the nontransportation elements anyway, or plans to spend time developing consumer decision-making elements, it may not be worth buying the kit for these three sections. The three relevant sections are (1) audio-cassette presentation of a girl's dilemma in deciding how to get to a meeting or whether to go at all; students discuss possible solutions, then are given the one she "actually" made; (2) role-play, complete with role profiles, on whether a family should purchase a bicycle for the 13-year-old son; (3) transportation decision faced by a serviceman who wants to visit his girl while on leave: a transparency presentation with student discussion of the best solution. The materials (which are good) on how to help students develop their decision-making skills are, of course, relevant to all areas of transportation consumer education and to these particular transportation sections of the kit.

J.C. Penney Company, Inc.
1301 Avenue of the Americas
New York, New York 10019

3. CONSUMER EDUCATION CURRICULUM MODULES: A SPIRAL PROCESS APPROACH, 1974. Grades 9-adult. Guide: 84 pages; four modules: average 130 pages each. $17.75 for the set.

Guide Original and comprehensive teaching guide covering all stages of consumer decision-making process. Materials were extensively and successfully field tested nationwide. Approach stresses "how to acquire and apply knowledge rather than... content"--that is, process, not facts. Authors believe "rapid changes quickly make specific content obsolete." Teacher guide contains overview of the materials, a creative and illustrated pre/post assessment device, bibliography, and detailed list of consumer education topics. Each of the modules deals with one of four processes consumers must engage in to become wise consumers. These processes are inquiry, valuing, decision, and action. Each module contains a pre/post assessment instrument, learning activities, instructional objectives, and bibliographies. Most of the activities provide, along with the activity description, a "teacher-learner dialogue" consisting of possible learner responses to the issue under discussion and suggested teacher responses. Activities are detailed and creative. Some teachers may find it requires more work than they are willing to devote to the modules to implement them effectively. Materials are attractively packaged, color coded, and illustrated.

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
Stock No.: 1780-01284

4. SUGGESTED GUIDELINES FOR CONSUMER EDUCATION, 1970. Grades K-12. 58 pages. $1.05.

Guide Overview of the field of consumer education, with sections on methods of implementation, suggested content areas, roles of administrators, teachers, parents, and students, and an instructional resources section. The latter section contains the addresses of the consumer offices in 38 states that had such divisions in 1970.

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

5. A RESOURCE KIT FOR TEACHING CONSUMER EDUCATION, 1970; revised, 1977. Grades 10-12. Five packets, one per topic; included are game, role-plays, resource list, posters, transparencies, independent study activities, teacher's guide (35 pages), cartoons. $59.50.

Guide Multimedia package, including an excellent game on car buying and maintenance, independent study activities, and resources, covering a range of consumer issues such as budgeting, saving, spending, earning, and borrowing. There are parts of several sections that treat transportation, namely,

- -- simple independent study activity on budgeting for a car
- -- role-play scenario on buying a car
- -- the game (SWINDLE)

Changing Times Education Service
1729 H Street, N.W.
Washington, D.C. 20006

6. AN INTRODUCTION TO VALUE CLARIFICATION, 1972. Grades 10-adult. 25-page issue of Forum Magazine; transparencies; posters; worksheets. $11.00.

Mini-unit

Good introduction to value clarification, with stress on affective education and the encouragement of student decision making. Highly appropriate in an area like consumer education.

J.C. Penney Company, Inc.
Educational and Consumer Relations
1301 Avenue of the Americas
New York, New York 10019

7. CONSUMER EDUCATION BIBLIOGRAPHY, 1972. 192 pages (6 of which are on transportation). $1.60.

Bibliography

Extensive and useful list of articles and books on a variety of consumer topics, including transportation. Lists general resources on consumer behavior--factors that motivate and stimulate consumers--agencies and organizations that are sources of redress for consumers, materials on car insurance, but only 30 entries on other transportation consumer topics. Curriculum guides are also listed, but few have relevance for transportation.

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

8. ELEMENTARY LEVEL CONSUMER EDUCATION, 1972. Grades K-6. 77 pages. $3.00.

Bibliography

Overview of consumer education at the elementary school level, with capsule descriptions of several programs in operation and of different teaching methods used. Extremely useful for its discussion of teaching methods, including field trips, classroom discussions, students teaching students, and use of newspapers. Guide also provides a series of methods for handling tough teaching problems like shoplifting and student embarrassment about being on welfare.

Consumers Union of the U.S., Inc.
Education Services Division
256 Washington Street
Mt. Vernon, New York 10550

9. SECONDARY LEVEL CONSUMER EDUCATION, 1973. Grades 9-12. 76 pages. $3.00.

Bibliography Description of secondary level consumer education programs nationwide. Excellent section on teaching approaches in general. Program descriptions, however, are not relevant, although three have components on buying a car.

Consumers Union of the U.S., Inc.
Educational Services Division
256 Washington Street
Mt. Vernon, New York 10550

10. PREPARING THE CONSUMER EDUCATOR, 1973. Grades K-adult. 86 pages. $3.00.

Guide Using the case study method, book discusses in-service teacher preparation and professional preparation approaches. Appendices include Vocational Education Amendments of 1968 (Part F) and Education Amendments of 1972 (Section 811). Case studies are thorough and informative.

Consumers Union of the U.S., Inc.
Education Services Division
256 Washington Street
Mt. Vernon, New York 10550

11. CONSUMER EDUCATION BIBLIOGRAPHY, 1972. 192 pages (17 pages on audiovisual materials). $1.60.

Catalogue Extensive list of films on a variety of consumer topics, including transportation and sources of additional audiovisual catalogues.

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

b. General Transportation Literature for Teachers

The materials in this section can be of direct assistance to teachers and curriculum developers for obtaining necessary background information in the transportation field in order then to develop curriculum materials and to teach them. It should be noted that most of the materials included in the Students Materials section of the curriculum unit Bibliographies may also be read profitably by curriculum developers and teachers to obtain this background information. With minor exceptions, articles on transportation consumer topics have not been included.

The materials are listed alphabetically by author under each transportation topic.

1 - 4. Automobiles: Insurance, Maintenance and Repair, Purchase, and Safety

Amrine, Michael, The Safe Driving Handbook (Grosset and Dunlap: New York, 1970).

Buel, Ronald A., Dead End: The Automobile in Mass Transportation (Penguin Books: Baltimore, Maryland, 1972).

Burby, John, The Great American Motion Sickness (Little, Brown, and Company: Boston, Massachusetts, 1971).

Calabresi, Guido, The Costs of Accidents: A Legal and Economic Analysis (Yale University Press: New Haven, Connecticut, 1970). Paperback.

Crouse, William H., Automotive Service Business: Operation and Management (McGraw Hill: New York, 1973).

Crowther, Sam, and Irwin Winehouse, Highway Robbery (Stein & Day: New York, 1966).

Ellinger, Herbert E., Automechanics (Prentice-Hall: Englewood Cliffs, New Jersey, 1972).

Fales, Edward D., Belts On, Buttons Down; What Every Mother Should Know About Car Safety (Delaconte Press: New York, 1971).

Keetan, Robert E. et al., Basic Protection for the Traffic Victim, A Blueprint for Reforming Automobile Insurance (Little Brown: Boston, Massachusetts, 1966).

Leavitt, Helen, *Superhighway, Super-Hoax* (Doubleday: New York, 1970).

Leinwand, Gerald, *The Traffic Jam* (Washington Square Press: New York, 1969).

Lupo, Alan et al., *Rites of Way: The Politics of Transportation in Boston and the U.S. City* (Little, Brown and Company: Boston, Massachusetts, 1971).

Merritt, William Olney, *Our Sacred Cars* (Exposition Press: New York, 1971).

Mitchell, Robert and Chester Rapkin, *Urban Traffic: A Function of Land Use* (Columbia University Press: New York, 1954, 1974).

Nader, Ralph, *Unsafe at Any Speed* (Bantam Books: New York, 1972; revised 1973).

Nader, Ralph et al., *What to do About Your Bad Car; An Action Manual for Layman Owners* (Grossman Publishers: New York, 1971).

O'Connell, Jeffrey, *Car Insurance and Consumer Desires* (University of Illinois Press: Carbondale, Illinois, 1969).

O'Connell, W. H., *Ride Free, Drive Free* (John Day Co.: New York, 1972).

Owen, Wilfred, *The Accessible City* (The Brookings Institution: Washington, D.C., 1972).

Rae, John B., *The Road and Car in American Life* (MIT Press, Cambridge, Massachusetts, 1971).

Randall, Donald A. et al., *The Greater American Auto Repair Robbery; A Report on a 10 Billion Dollar National Swindle and What You Can Do About It* (Charterhouse: New York, 1972).

Rokes, Willis P., *No-Fault Insurance* (Merritt Co.: Santa Monica, California, 1972).

Stone, Tabor, *Beyond the Automobile* (Prentice-Hall: Englewood Cliffs, New Jersey, 1971).

Tait, A. et al., *Principles of Autobody Repairing and Repainting* (Prentice Hall: Englewood Cliffs, New Jersey, 1971).

Till, Anthony, *What You Should Know Before You Have Your Car Repaired* (Sherbourne Press: Los Angeles, California, 1970).

5. Bicycles

Alth, Max, *All About Bikes and Bicycling* (Hawthorne Books, Inc.: New York, 1972).

Boethling, Bob (ed.), *The Bicycle Book* (Price, Stern, Sloan Publishers: Los Angeles, California, 1972).

Consumer Guide, *Consumer Guide Bicycles: Complete Bicycle Buying Guide* (Popular Library: New York, 1972).

Coombs, Charles, I., *Bicycling* (William Morrow & Company, Inc.: New Jersey, 1972).

Cuthbertson, Tom, *Anybody's Bicycle Book* (Berkeley: Ten Speed Press, 1971).

Cuthbertson, Tom, *Bike Tripping* (Berkeley: Ten Speed Press, 1972).

Frankel, Lillian, and Godfrey Frankel, *Bicycle Book* (Sterling Publishing Co., Inc.: New York, 1972).

Henkel, Stephen C., *Bikes* (Chatham Press, Inc.: Riverside, Connecticut, 1972).

MacFarlan, Allan, A., *The Boy's Book of Biking* (Pocket Books: New York, 1970).

McFarlane, John, W., *It's Easy to Fix Your Bike* (Follet Publishing Co.: Chicago, Illinois; revised 1972).

McIntyre, Bibs, *The Bike Book* (Harper & Row Publishers: New York, 1974).

Wagenvoord, James, *Bikes and Riders* (Van Nostrand Reinhold, Co.: Cincinnati, Ohio, 1972).

6. Drinking and Driving

1968 Alcohol and Highway Safety Report (U.S. Government Printing Office: Washington, D.C., 1968).

Bacon, Margaret and Mary Brush Jones, *Teen-Age Drinking* (Thomas Y. Crowell: New York, 1968).

Bacon, Seldon D. (ed.), *Studies of Driving and Drinking* (Rutgers University Center of Alcohol Studies: New Jersey, 1968).

Halverson, Guy, *Stop the Drunk Driver* (The Christian Science Publishing Society: Boston, Massachusetts, 1970).

Maddox, George, L. and Bevode C. McCall, *Drinking Among Teen-Agers; A Sociological Interpretation of Alcohol Use by High School Students* (Rutgers University Center of Alcohol Studies: New Jersey, 1964).

Voas, R. B., and Len Tabor, *The Relationship of Alcohol Abuse to Highway Safety* (U.S. Department of Transportation, National Highway Traffic Safety Administration: Washington, D.C., 1970) Catalogue #H5810165.

7. Emergency Vehicles

Keller, Harmut, *An Analysis of Freeway Emergency Service Systems* (National Technical Information Service: Springfield, Virginia, 1969) Catalogue #AD 695-378).

8. Environment and Transportation

Appleyard, Donald et al., *The View from the Road* (MIT Press: Cambridge, Massachusetts, 1964).

Crouse, Wm. H., *Automotive Emission Control* (McGraw-Hill: New York, 1971).

Highway Research Board, Special Report 105, *Transportation & Community* Values (Transportation Research Board: Washington, D.C., 1969).

Mowbrey, A. Q., *Road to Ruin* (Lippincott: Philadelphia, Pennsylvania, 1969).

Patterson, Donald J., *Emissions from Combustion Engines and Their Control* (Ann Arbor Science Publishers: Ann Arbor, Michigan, 1972).

Voorhees, Alan M. and Associates, *A Guide for Reducing Automotive Air Pollution* (National Technical Information Service: Springfield, Virginia, 1971) Catalogue #PB 204870.

9. Goods Movement

Hammond, Harold F., "The Importance of Commercial Carriers in Total Transportation," *Traffic Quarterly*, 25:603, October 13, 1971.

10. Hitchhiking

"The Deadly Odds," *Good Housekeeping*, July, 1973.

"On the Road: Hitchhiking on the Highway," *Society*, July, 1973.

11. Motorcycles

Alth, Max, All About Motorcycles (Hawthorne: New York, 1975).

Castrol Book of Motorcycle Care (British Book Center: New York, 1973).

Cunningham, Chet, Your Bike: How to Keep Your Motorcycle Running Putnam: New York, 1975).

Edmonds, I. G., Minibikes and Minicycles (Archway: New York, 1975).

Engel, Lyle K., Complete Book of Minibikes and Minicycles (Arco: New York, 1975).

Engel, Lyle K., The Complete Motorcycle Book (Scholastic Book Service: New York, 1974).

Griffin, Al, Motorcycles (Regency: Chicago, Illinois, 1974).

Hall, Al (ed.), Motorcycle Buyer's Guide (Petersen Publishers: Los Angeles, California, 1975).

Hampton, William, The Complete Beginner's Guide to Motorcycle Skill and Safety (Books for Better Living: Chatsworth, 1973).

Koch, Donald, Chilton's Complete Guide to Motorcycles and Motrocylcing (Chilton: Radner, Pennsylvania, 1974).

12. Pedestrians

Fruin, John J., Pedestrian Planning and Design (Metropolitan Association of Urban Designers and Environmental Planners: New York, 1971).

"The Art and Technique of Walking," Consumer Bulletin, April, 1973.

"Let's Take a Walk," Changing Times, September, 1972.

13. Public Transportation:
Buses, Subways, Taxis, Trolleys

Buel, Ronald A., Dead End: The Automobile in Mass Transportation (Prentice-Hall: Englewood Cliffs, New Jersey, 1972).

Creighton, Roger L., Urban Transportation Planning (University of Illinois: Chicago, Illinois, 1970).

Department of Transportation, Conference on Transportation and Human Needs in the 70's (Washington, D.C., 1972). (National Information Service: Springfield, Virginia, 1972) Catalogue #PB224925.

Farris, Martin T. and Paul T. McElhiney, Modern Transportation: Selected Readings, Second edition (Houghton Mifflin: Boston, Massachusetts, 1973).

Howsan, Henry Frederick, The Rapid Transit Railways of the World (Allan & Bacon: London, 1971).

Kraft, Gerald et al., Free Transit (D.C. Heath: Lexington, Massachusetts, 1970).

Lang, A. Scheffer et al., Urban Rail Transit (MIT Press: Cambridge, Massachusetts, 1965).

Levin, Melvin and Norman Abend, Bureaucrats in Collision, Case Studies in Area Transportation Planning (MIT Press: Cambridge, Massachusetts, 1971).

Meyer, J. R. et al., The Urban Transportation Problem (Harvard University Press: Cambridge, Massachusetts, 1965).

Sampson, Roy and Martin Farris, Domestic Transportation: Practice, Theory and Policy, Second edition (Houghton Mifflin: Boston, Massachusetts, 1971).

Smerk, George M. (ed.), Readings in Urban Transportation (Indiana University Press: Bloomington, Indiana, 1968).

Stone, Tabor R., Beyond the Automobile (Prentice-Hall: Englewood Cliffs, New Jersey, 1971).

Transportation Research Board, Special Report 105, Transportation and Community Values (Transportation Research Board: Washington, D.C., 1969).

14. Public Transportation Problems

Buel, Ronald A., Dead End: The Automobile in Mass Transportation (Prentice-Hall: Englewood Cliffs, New Jersey, 1972).

Creighton, Roger L., Urban Transportation Planning (University of Illinois: Chicago, Illinois, 1970).

Department of Transportation, Conference on Transportation and Human Needs in the 70's (Washington, D.C., 1972); (National Technical Information Service: Springfield, Virginia, 1972) Catalogue # PB224925.

Farris, Martin T. and Paul T. McElhiney, Modern Transportation: Selected Readings, Second edition (Houghton Mifflin: Boston, Massachusetts, 1973).

Howsan, Henry Frederick, The Rapid Transit Railways of the World (Allan & Bacon: London, 1971).

Kraft, Gerald et al., Free Transit (D.C. Heath: Lexington, Massachusetts, 1970).

Levin, Melvin and Norman Abend, Bureaucrats in Collision, Case Studies in Area Transportation Planning (MIT Press: Cambridge, Massachusetts, 1971).

Meyer, J. R. et al., The Urban Transportation Problem (Harvard University Press: Cambridge, Massachusetts, 1965).

Sampson, Roy and Martin Farris, Domestic Transportation: Practice, Theory and Policy, Third edition (Houghton Mifflin: Boston, Massachusetts, 1975).

Staley, Richard A., Trucks and Our Changing Cities (Local and Short-Haul Carriers National Conference, 1616 P Street, N.W., Washington, D.C. 20036). Single issues free.

Smerk, George M. (ed.), Readings in Urban Transportation (Indiana University Press: Bloomington, Indiana, 1968).

Stone, Tabor R., Beyond the Automobile (Prentice-Hall: Englewood Cliffs, New Jersey, 1971).

15. Recreation Vehicles

Andrews, Howard L. and Alexander L. Russel, Basic Boating: Piloting and Seamanship (Prentice-Hall: Englewood Cliffs, New Jersey, 1974).

BUC International Corporation, BUC's 1976 New Boat Directory (Ft. Lauderdale, Florida, 1976).

Malo, John W., Snowmobiling: The Guide (MacMillan: New York, 1972).

Malo, John, All Terrain Adventure Vehicles (MacMillan: New York, 1972).

Thomas, James Lee, Safe Snowmobiling: Fun Without Damage (Sterling Publishing Co.: New York, 1971).

Tuite, James J., Snowmobiles and Snowmobiling (Tower: New York, 1971).

U.S. Department of the Interior, Offroad Recreation Vehicles (U.S. Government Printing Office: Washington, D.C., 1972).

Wallace, Clarke, The Complete Snowmobiler (Scribner: New York, 1971).

Wimer, Sally, The Snowmobiler's Companion (Scribner: New York, 1973).

16. School Bus Safety

"Bus Crash: Valley Cottage School," Good Housekeeping, May, 1973.

17. Special Mobility Problems

Transportation Research Board, *Transit for the Poor, the Aged, and the Disadvantaged, Transportation Research Record #403* (Washington, D.C., 1972).

18. Tourism and Intercity Travel

Farris, Martin T. and Paul T. McElhiney, *Modern Transportation: Selected Readings*, Second edition (Houghton Mifflin: Boston, Massachusetts, 1973).

Luna, Charles, *Handbook of Transit in America* (Popular Library: New York, 1971).

O'Dell, Andrew C., *Railways and Geography* (Hutchinson: London, 1971).

Sampson, Roy and Martin Farris, *Domestic Transportation: Practice, Theory and Policy*, Third edition (Houghton Mifflin: Boston, Massachusetts, 1975).

19. Transportation for the Future

Creighton, Roger L., *Urban Transportation Planning* (University of Illinois: Chicago, Illinois, 1970).

Department of Transportation, *Conference on Transportation and Human Needs in the 70's* (Washington, D.C., 1972); (National Technical Information Service: Springfield, Virginia, 1972) Catalogue # PB224925.

Farris, Martin T. and Paul T. McElhiney, *Modern Transportation: Selected Readings*, Second edition (Houghton Mifflin: Boston, Massachusetts, 1973).

Gunston, Bill, *Transportation Problems and Prospects* (Dutton: New York, 1973).

Hollman, Hal, *Transportation in the World of the Future* (M. Evans and Company: New York, 1974).

Stone, Tabor R., *Beyond the Automobile* (Prentice-Hall: Englewood Cliffs, New Jersey, 1971).

Yukubousky, Richard, *Citizen Participation in Transportation Planning, A Selected Bibliography* (U.S. Federal Highway Administration, Community and Environmental Planning Branch: Washington, D.C., 1973).

20. Transportation Planning

Creighton, Roger L., *Urban Transportation Planning* (University of Illinois: Chicago, Illinois, 1970).

Department of Transportation, *Conference on Transportation and Human Needs in the 70's* (Washington, D.C., 1972); (National Technical Information Service: Springfield, Virginia, 1972) Catalogue #PB224925.

Farris, Martin T. and Paul T. McElhiney, *Modern Transportation: Selected Readings*, Second edition (Houghton Mifflin: Boston, Massachusetts, 1973).

Levin, Melvin and Norman Abend, *Bureaucrats in Collision, Case Studies in Area Transportation Planning* (MIT Press: Cambridge, Massachusetts, 1971).

Meyer, J. R. et al., *The Urban Transportation Problem* (Harvard University Press: Cambridge, Massachusetts, 1965).

Sampson, Roy and Martin Farris, *Domestic Transportation: Practice, Theory and Policy*, Third edition (Houghton Mifflin: Boston, Massachusetts, 1973).

Smerk, George M. (ed.), *Readings in Urban Transportation* (Indiana University Press: Bloomington, Indiana, 1968).

Transportation Research Board, *Special Report 105, Transportation and Community Values* (Highway Research Board: Washington, D.C., 1969).

c. General Works on Consumer Behavior for Teachers

The following works will assist curriculum developers and teachers to obtain a general knowledge of the field of consumer behavior.

Aaker, David and George Day, *Consumerism: Search for Consumer Interest* (MacMillan: New York, 1974).

Bell, Carolyn Shaw, *Consumer Choice in the American Economy* (Random House: New York, 1966).

Britt, Stewart Henderson (ed.), *Consumer Behavior and the Behavioral Sciences: Theories and Application* (John Wiley: New York, 1966).

Britt, Stewart Henderson and James L. Lubawski (eds.), *Consumer Behavior in Theory and in Action* (John Wiley: New York, 1970).

Dichter, Ernest, *Handbook of Consumer Motivations* (McGraw-Hill: New York, 1964).

Gordon, Leland J. and Stewart M. Lee, *Economics for Consumers*, Sixth edition (Van Nostrand Reinhold: New York, 1972).

Herrmann, Robert O., *The Consumer Behavior of Children and Teenagers: An Annotated Bibliography* (American Marketing Association: Chicago, Illinois, 1969).

Howard, John A. and Jagdish N. Sheth, *The Theory of Buyer Behavior* (John Wiley: New York, 1969).

Oppenheim, Irene, *The Family as Consumers* (MacMillan: New York, 1965).

Packard, Vance, *The Hidden Persuaders* (Pocket Books: New York, 1957).

Phillips, E. Bryant and Sylvia Lane, *Personal Finance*, Third edition (John Wiley: New York, 1974).

Schoenfeld, David and Arthur A. Natella, *The Consumer and His Dollars*, Second edition (Oceana Publications: Dobbs Ferry, New York, 1975).

Smith, Carlton and Richard Putman Pratt, *Time-Life Book of Family Finance* (Time-Life: New York, 1969).

Troelstrup, A. W., *The Consumer in American Society: Personal and Family Finance*, Fifth edition (McGraw-Hill: New York, 1975).

Warmke et al., *Consumer Economic Problems*, Eighth edition (South-Western Publishing Co.: Cincinnati, Ohio, 1971).

Wilhelms, F. et al., *Consumer Economics*, Third edition (McGraw-Hill: New York, 1966).

d. Periodicals

Periodicals are a rich source of information on the use and purchase of transportation goods and services and on the availability and location of additional materials on transportation consumption. Even general consumer periodicials, like Consumer Reports and Changing Times, contain in most issues at least one article on transportation goods and services. Unfortunately, it was not feasible to include a definitive list of all relevant periodicals. For example, there are over two dozen on motorcycles alone. It was also impossible to provide here a list of relevant articles that have appeared in the recent past in periodicals. Moreover, the subscriber or reader cannot know in advance when a periodical will print an article that will interest him. Despite these drawbacks, many teachers and students will find it useful to subscribe to or read library copies of periodicals in the expectation that they will discover articles or references to additional materials of immediate relevance to their teaching or research efforts. The more specifically a periodical is related to his particular interest, of course, the more likely is the reader to find relevant materials. Teachers and readers can also consult in libraries the Reader's Guide to Periodical Literature for past articles about transportation.

AMA News
American Motorcycle Association
5655 North High Street
Worthington, Ohio 43085

Bicycling
119 Paul Drive, Box 3330
San Rafael, California 94902

Bike World
Post Office Box 366
2536 Middlefield Road
Mountain View, California 94040

Boom in Bikeways
Bicycle Manufacturers Association
1101 Fifteenth Street, N.W.
Washington, D.C. 20005

Changing Times
The Kiplinger Magazine
Editors Park, Maryland 20782

Coast Guard Boating Safety Newsletter
Department of Transportation
Office of Boating Safety
400 Seventh Street, S.W.
Washington, D.C. 20590

Consumer Educator
National Association of Secondary School Principals
2101 Sixteenth Street, N.W.
Washington, D.C. 20036

Consumer News
Federal Office of Consumer Affairs
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Consumer Reports
Consumer's Union
256 Washington Street
Mt. Vernon, New York 10550

Environment Action Bulletin
33 East Minor Street
Emmaus, Pennsylvania 18049

Everybody's Money
Credit Union National Association
Box 431
Madison, Wisconsin 53701

International Railway Journal
Simmons-Boardman Publishing Corporation
350 Broadway
New York, New York 10013

Journal of American Insurance
American Mutual Insurance Alliance
20 North Wacker Drive
Chicago, Illinois 60606

Journal of the American Institute of Planners
1776 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Mini-Bike Guide
Post Office Box 1880
Huntington Beach, California

Modern Railroads
Cahners Publishing Co., Inc.
5 South Wabash Avenue
Chicago, Illinois 60603

Motor Trend Magazine
8490 Sunset Boulevard
Los Angeles, California 90069

Newsletter of the American Council on Consumer Interests
238 Stanley Hall
University of Missouri
Columbia, Missouri 65201

Of Consuming Interest
Federal State Reports
Post Office Box 986
Arlington, Virginia 22216
(703) 527-4950

Railway Age
Simmons-Boardman Publishing Corporation
350 Broadway
New York, New York 10013

Road and Track Magazine
Post Office Box 2324
FDR Post Office
New York, New York 10022

Skylights
National Aerospace Education Council
Suite 310, 806 Fifteenth Street, N.W.
Washington, D.C. 20005

Sno Goer
1999 Shepard Road
St. Paul, Minnesota 55116

Traffic Quarterly
Eno Foundation for Transportation, Inc.
Saugatuck, Connecticut

Traffic Safety
The National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

Trains
Kalmbauch Publishing Company
1027 North Seventh Street
Milwaukee, Wisconsin 53233

Transportation Board
Publications Office
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

Transpo Topics for Consumers
U.S. Department of Transportation
Office of the Secretary
Washington, D.C. 20590

e. Sources of Free and Inexpensive Materials

The following are excellent sources for materials on transportation consumer education:

AAA FOUNDATION FOR TRAFFIC SAFETY
1712 G Street, N.W.
Washington, D.C. 20006

AMERICAN AUTOMOBILE ASSOCIATION
Credit and Other Department
1712 G Street, N.W.
Washington, D.C. 20006

BICYCLE MANUFACTURERS ASSOCIATION
1101 Fifteenth Street, N.W.
Washington, D.C. 20005

CONSUMERS UNION OF U.S., INC.
Educational Services Division
256 Washington Street
Mount Vernon, New York 10550

FEDERAL TRADE COMMISSION
Sixth Street and Pennsylvania Avenue, N.W.
Washington, D.C. 20580

FORD MOTOR COMPANY
The American Road
Dearborn, Michigan 48121

GENERAL MOTORS CORPORATION
Manager, Educational Relations Section
Public Relations Staff
3044 West Grand Boulevard
Detroit, Michigan 48202

GENERAL SERVICES ADMINISTRATION
Federal Supply Service
Washington, D.C. 20405

INTERSTATE COMMERCE COMMISSION
Twelfth and Constitution Avenue, N.W.
Washington, D.C. 20423

NATIONAL SAFETY COUNCIL
425 North Michigan Avenue
Chicago, Illinois 60611

OFFICE OF CONSUMER AFFAIRS
U.S. Department of Health, Education, & Welfare
330 Independence Avenue, S.W.
Washington, D.C. 20201

U.S. DEPARTMENT OF COMMERCE
Fourteenth Street and Constitution Avenue, N.W.
Washington, D.C. 20230

ALLSTATE INSURANCE COMPANY
Allstate Plaza
Northbrook, Illinois 60062

AMERICAN COUNCIL ON CONSUMER INTERESTS
(Formerly Council on Consumer Information)
238 Stanley Hall
University of Missouri
Columbia, Missouri 65201

AMERICAN HOME ECONOMICS ASSOCIATION
2010 Massachusetts Avenue, N.W.
Washington, D.C. 20036

AMERICAN MUTUAL INSURANCE ALLIANCE
20 North Wacker Drive
Chicago, Illinois 60606

AMERICAN NATIONAL RED CROSS
Eighteenth and E Streets, N.W.
Washington, D.C. 20006

AMERICAN SAFETY BELT COUNCIL, INC.
Public Education Office
Post Office Box 589
Los Angeles, California 90028

AUTO INDUSTRIES HIGHWAY SAFETY COMMITTEE, INC.
2000 K Street, N.W.
Washington, D.C. 20006

AUTOMOTIVE SAFETY FOUNDATION
200 Ring Building
1200 Eighteenth Street, N.W.
Washington, D.C. 20036

BOY SCOUTS OF AMERICA
New Brunswick
New Jersey 08903

CHAMBER OF COMMERCE OF THE UNITED STATES
1615 H Street, N.W.
Washington, D.C. 20006

U.S. COAST GUARD
Office of Boating Safety
1200 Second Street, S.W.
Washington, D.C. 20559

APPENDIX

Bibliography Evaluation Criteria

All teacher and student materials that were located were evaluated along two dimensions: *quality* and *relevance*. *Quality* was defined to include the following components:

- Provision of creative and detailed classroom activities or learning experiences that go beyond the one- or two-sentence "have the students do x, y, z" suggestions;
- Development of decision-making skills that may be transferable to other consumer issues;
- Attention to affective educational approaches and objectives, not merely cognitive ones;
- Emphasis on student initiative and involvement in classroom activities and in the planning of those activities;
- The provision of a lucid conceptual framework of transportation consumer education by which teachers can grasp the field and the interrelationships of its components and by which teachers can develop additional activities and units of their own;
- A modular, flexible approach that enables teachers to develop activities and units tailored to the needs of their particular students and community;
- Provision of accurate factual information;
- A nonmoralistic, noninjunctive approach;
- Stress on the needs and problems of minority groups; and
- An interdisciplinary approach to consumer education.

Few curriculum materials combined all these quality ingredients. Many included none or very few. In some borderline cases where a teaching material contained some quality ingredients, the authors made a subjective evaluation on whether this material contained *enough* of these elements to warrant inclusion in this report.

To be considered *relevant*, a teaching material had to deal in a significant way with transportation consumer education from the point of view of, or useful to, a consumer. Teaching materials were excluded from the Guide when their relevance was extremely limited or nonexistent because

- Only a small section of the material dealt with transportation consumer issues. However, such materials were included when a subsection was of high caliber, dealt with an important aspect of transportation not covered elsewhere, or was part of an easily accessible and inexpensive unit;

- The material was extremely specific--it dealt with too narrow an aspect of an issue to be useful to teachers or students except in highly specialized courses or units;

- The material was designed for a highly specialized audience;

- The material was oriented strictly toward career education;

- The material was outdated;

- The material contained information that applied primarily or significantly to a local situation; or

- The material was not distributed out of state.

SPIRIT MASTER #1: FOR USE WITH ACTIVITY #1

CHECK SHEET

Feature	Type of Public Transportation						
	Bus	*Train*	*Subway*	*Taxi*	*Ferry*	*Trolley**	*Carpool*
Convenience							
Hours							
Departure points							
Destination (stops)							
Safety							
Crime							
Traffic accidents							
Pollution							
Expense							
Absolute							
Relative to automobile							
Relative to other PT**							
Speed							
Frequency of runs							
Absolute travel speed							
Speed relative to car							
Speed relative to other PT**							
Comfort							
Seating							
Crowding							
Air conditioning/heat							
Privacy							
During rush hour							
Off-hour							
Social Benefits							
Energy use							
Air/noise pollution							

*Light Rail
**Public Transportation

SPIRIT MASTER #2: FOR USE WITH ACTIVITY #15

Case Study of a Proposed Public Transportation Improvement

Read the following case study and analyze it in terms of what kinds of opposition are likely to exist or develop against the proposed plan, why such opposition may arise, and how transportation planners and citizens who favor the improvement might counter such opposition.

Smithsville, U.S.A.--a typical city with a population of about 400,000 and a twice-daily traffic jam during the morning and evening rush hours. With the typical problems the poor, the elderly, and the handicapped face trying to get around the city. However, the Citizens for Better Transportation (CBT) has come up with a suggestion for improving the traffic problems of Smithsville. The CBT believes that if the city would provide special traffic lanes for buses on the major highways going in and out of the city during rush hours along with increased bus service during those times of the day, some of the rush hour problems could be solved. As part of its plan, the CBT would also like to see fares on all buses eliminated for the elderly; an additional 50 buses put into service; ten new bus routes developed to service the poor communities better; a tax on automobile parking lots in the city by which to pay for the buses and make up for the loss in revenues from free fares for the elderly; an increase of $5 per $1,000 in the excise tax on automobiles; and only carpools allowed to drive on the main highways leading into and out of the city during rush hour. Obviously, this plan is going to stir up a lot of opposition in Smithsville. However, the CBT is a persistent group that doesn't give up easily. It realizes it's going to have to plan its campaign very carefully if it is to succeed. It will have to

1. Decide what kinds of people and groups are likely to oppose its plan

2. Determine why these people or businesses or agencies will oppose it

3. Determine what it can do to overcome their opposition

4. Determine what allies it can expect to find among citizens, the government, politicians, and businesses.

What would you say are the answers the CBT came up with to each of these four questions?

SPIRIT MASTER #3: FOR USE WITH ACTIVITIES #27 AND #29

Sample Scenarios

Louis Spontini and his family live near a large city airport. Airplanes carrying cargo land at all hours of the night and make it difficult for him to sleep. A new group has just been formed to force the airport to shut down between 11 p.m. and 6 a.m. and Mr. Spontini is thinking of joining the group. However, business people in the city say that if the airport closes down during the night, many businesses won't be able to get their goods on time or in good condition. Trains, buses, and trucks either take too long or are too expensive. These business people say they might have to close down if the airport is closed at night. This would mean many people would lose their jobs.

Should Mr. Spontini fight to close the airport at night? Why?

Sophie Goldberg lives in a pleasant part of San Fernando, a large city with its share of traffic and parking problems. She has to fight every day, in fact, to get from her home to work a mile away. Then she has a problem finding a parking place when she gets home. For some time now, she has been reading about plans for building a freeway a mile from where she lives. This freeway would help people who want to drive into and out of the city from the suburbs. The proposed location would go through part of a beautiful old park near her home. In addition, she feels that the freeway will bring more cars into the city, create more parking problems and more air pollution. People who want the highway say that it will decrease travel time and cause less air pollution on local streets. City officials want the highway because it will encourage new industry to locate there and make it easier for people from the suburbs to shop in the downtown stores. The city needs the money from people from the suburbs in sales taxes and purchases. Without a freeway, these people will go to the local shopping centers rather than travel by slow routes into the city.

Should Ms. Goldberg oppose the highway? Why?

Robert Hernandez lives in Littleville, a small town about 40 miles from "the big city," North Neon. He likes his quiet countryside, free of air pollution and noise and lots of people. However, he has just learned from the newspaper that the state highway department, with Federal assistance, plans to build a part of Interstate 44 just one mile outside of Littleville. In order to locate the highway there, a bridge will have to be built over the best trout-fishing stream in the county. Most important, the exit at Littleville threatens to change the town from a quiet rural village to a big suburb. People who want the highway say that users will save time by having a fast route across the county and there will be fewer accidents than on the slower, windy roads people have to use now.

Should Robert Hernandez oppose or support the highway? Why?

Hilda LeClair lives on Pleasant Street, a two-lane suburban street lined with trees and houses. There are quite a few children and dogs in the neighborhood who play outdoors and run from one yard to another. Unfortunately, Pleasant Street is an easy connection between two main highways and huge trucks drive down the street from dinner-time until morning. The truck noise is disturbing and Hilda LeClair and her children are having difficulty sleeping. The trucks spray dirt on the house and they even make the house shake. When summer comes, it will be dangerous for the children to play outdoors after dinner. When Hilda called the office of the largest truck company to complain, she was told that the truckers need to use Pleasant Street because it saves time--and that saves money on the goods the truckers are carrying. Ms. LeClair is not satisfied with this result.

What should she do? Why?

The state of Liveitup is holding its annual hearings on whether to outlaw or restrict highway advertising. Ron Smith is uncertain about what to do at the hearings. Business people argue that the signs are necessary to attract tourists to the places of recreation and to provide them with information about what events are taking place, where to eat, and where to find hotels and motels. The tourist trade appears to reduce taxes on residents because of the money the tourists spend. In addition, the tourist business provides jobs for many people in the state. On the other hand, the signs sometimes cause accidents by distracting drivers from their driving tasks and, in addition, are an eyesore to many residents and tourists alike. Should Mr. Smith support a ban or restriction on roadside advertisements? Why?

SPIRIT MASTER #4: FOR USE WITH ACTIVITY #32

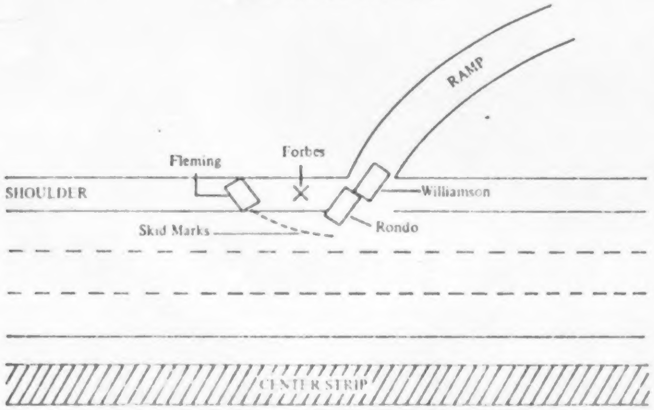
Fleming vs. Rondo--A Hearing

Below are five statements given in an automobile accident case--Fleming vs. Rondo. Ms. Fleming is suing Mr. Rondo for property damages. This complaint is being held before a hearing officer to determine if settlement can be reached out of court. Each person at the hearing is given the opportunity to tell his or her side of what happened in an attempt to arrive at a solution to the problem.

Hearing Officer: My name is Ms. Sussman. I am the hearing officer this afternoon. Present in the room are Ms. Fleming who has brought a suit for property damages against Mr. Rondo; Officer O'Connor who filled out the Police Accident Report in this case; and two witnesses, Mr. Forbes and Mr. Williamson. I am here to listen to you all. Each person will be given a chance to make a statement. No one should interrupt the other. I am not here to judge either party; I am here to help you reach a resolution and keep this case from going to the courts to save you time and money. Officer O'Connor, would you begin this hearing by making your statement?

Officer O'Connor (without emotion or inflection): I had come on duty the day of the accident at around 5:00. I hadn't been out on the road for more than 20 minutes when I got a call on my radio that there had been an accident on the highway near the Ocean View exit. Patrol cars in the area were to report there right away--traffic was all tied up. Let me use this accident report diagram to show you what I found when I got to the scene. One car--this one here--was up against the guardrail and two others were sitting in the road near the entrance ramp to the highway. The hitchhiker--who of course had moved from where he was standing at the time of the accident--was probably standing right about here in the road. Anyway, when I got to the scene, the cars were just like they are in the diagram. Several people were gathered around a woman who was sitting on the guardrail. I pulled my car over to the side and got out. I went over to the group of people and asked what had happened and if anyone were hurt. The woman's knee was bleeding, but other than that she and everyone else seemed all right. The woman's name was Sheila Fleming. She had been driving the car that was up against the guardrail. We measured her skid marks later--she had been driving between 45 and 50 mph at the time of the accident. The hitchhiker was a young kid named Jim Forbes--about 19 years old. The drivers of the other two cars were a Mr. Rondo and a Mr. Williamson. As far as we could find out, none of them had been involved in a serious accident before. That's about all I can tell you. All three cars were pretty badly damaged, though.

ACCIDENT REPORT DIAGRAM



Hearing Officer: Thank you, Officer O'Connor. Mr. Forbes, would you give your statement now?

SPIRIT MASTER #5 (BEGINS ON PREVIOUS PAGE): FOR USE WITH ACTIVITY #32

Mr. Forbes (a little "spacey"): Well...I was hitching a ride on Route 44. I'm afraid I really didn't see too much of the accident because I wasn't paying much attention to the road. I tend to do a lot of daydreaming while I'm hitching rides--you have to or you can go bats while you're standing there waiting for somebody to pick you up. I didn't even see Ms. Fleming pulling over. The first thing I remember was hearing a horn blowing. I sort of "came to" then, just in time to see Ms. Fleming hit the guardrail right behind me and the other two cars crashing into each other. My heart was beating a mile a minute. I'm just glad I'm still alive! I could have been hit, you know. In fact, I could have been hurt pretty badly.

Hearing officer: Thank you, Mr. Forbes. Ms. Fleming, would you make your statement, please?

Ms. Fleming (trying to sound calm and firm): I was driving in the middle lane of Route 44. I wasn't too far away from Mr. Forbes--maybe a quarter of a mile, I'm not too sure exactly how far it was--when I noticed him standing near the entrance ramp hitching. He looked like a nice person, so I thought I would do him a favor and pick him up. I checked my rear view mirror and started to gradually change lanes so that I could stop to give him a ride. There was *no one* behind me when I started to pull over. *I am sure of that.* I am a very careful driver--I have never had an accident in my life. Just as I got into the other lane, a horn started blaring from somewhere behind me and I heard a squeal of brakes. (Becoming somewhat emotional) It was then that I lost control of the car and hit the guardrail.

Hearing officer: Mr. Rondo, may we now hear your side of the accident?

Mr. Rondo (somewhat defiantly): I was entering the highway by the entrance where Mr. Forbes was standing. I get on the highway by that ramp every evening of the week. I know it well. Every night I go about it in just the same way. I come down the ramp, cautiously come out on the highway on the shoulder, then squeeze into the flow of traffic. That's the only way to do it--otherwise you sit there forever, waiting until someone gives you a break. That night would have been just like any other if that hitchhiker hadn't been there. I had to pull out into traffic--if I hadn't, I would have hit that kid. And that lady had to be pulling over just then, too--she should have looked before she started to pull over. I know that road--I've driven it a million times--and I know you can see all the traffic on the entrance ramp from where that lady was. She should have seen me. She should have waited to pull over. Dumb...woman...

Hearing officer: Thank you, Mr. Rondo. And, Mr. Williamson, may we hear from you now?

Mr. Williamson (matter-of-factly): I was behind Mr. Rondo on the entrance ramp. Traffic was really heavy so we were all moving pretty slowly and everybody was pretty close to everybody else. But it's always like that at rush hour. If you're a good driver, nobody has accidents--you just got to be able to handle yourself and your car. Anyway, Mr. Rondo was just about to move out on the highway--in fact, I think he had just started to speed up a little--I remember that because I was thinking my car hadn't picked up like his since it was a week old. Nothing like a new car! (Pause) Well, anyway, I was just about to step on the accelerator when I heard this horn--I didn't even know it was that guy Rondo in front of me. I just slammed on my brakes and--whammo! What can I say?

SPIRIT MASTER #6: FOR USE WITH ACTIVITY #34

Sample Class Quiz on Drinking and Driving

1. Which of the following *least* affects the amount of alcohol in the bloodstream? (a) Stomach content; (b) Weight; (c) Drinking experience; (d) Time elapsed

2. Which of the following *best* describes the effects of alcohol on driver performance? (a) Blurs vision; (b) Reduces hearing ability; (c) Increases attention span; (d) Reduces ability to react quickly

3. When a nondrinking driver is compared with a drinking driver who has had three drinks, how much more likely is it that the drinking driver will become involved in a traffic accident? (a) No difference; (b) Ten times greater; (c) 25 times greater; (d) No one knows

4. On the basis of present-day knowledge, the greatest single driver-related cause of fatal highway collision is (a) Emotional upsets; (b) Inattention; (c) Fatigue; (d) Alcohol

5. What percentages of fatal traffic accidents involve alcohol use? (a) 1 percent; (b) 10 percent; (c) 50 percent; (d) Nearly all; (e) No one knows

6. Of all alcohol-related fatal car accidents, (a) Two-thirds involve problem drinkers; (b) Most involve social drinkers who had one too many; (c) Half involve people who had only a little to drink; (d) No one knows what kind of drinkers are involved.

7. Every day in the United States an average of approximately how many people are killed in car accidents in which alcohol was involved? (a) Three; (b) Ten; (c) 75; (d) 200; (e) No one knows

8. Police know that two-thirds of the alcohol-related traffic fatalities are caused by problem drinkers because of all of the following *except* (a) Their very high blood alcohol levels; (b) Their previous record of offenses; (c) Their record of alcohol problems; (d) Their very high speed rate just before the accident

9. The social drinker-driver is dangerous because (a) Of sheer numbers; (b) They are not easy to spot and defend against; (c) They fail to recognize their limitations; (d) All of these

10. Problems drinkers who drive usually have (a) Serious health problems; (b) Other personal problems; (c) Low intelligence; (d) A record as law-abiding citizens

11. Which of the following is *most* affected by heavy drinking? (a) Brake reaction time; (b) Color perception; (c) The reasoning process; (d) Distance judgement

12. Excessive drinking may have which of the following dangerous effects on a driver? (a) Overconfidence; (b) Risk-taking desires; (c) Decreased judgement; (d) Increased reaction time; (e) Lack of concentration; (f) (c) and (d); (g) (c), (d), and (e); (h) All of the above

13. Since we know that two-thirds of all alcohol-related traffic fatalities are associated with problem drinkers, (a) We should ignore social drinkers who drink and then drive; (b) Problem drinkers should be a major focus of efforts to reduce drinking-driving accidents; (c) Drivers should feel free to have a couple of drinks before driving; (d) All of the above

14. Teenagers are more likely to have difficulty driving safely after drinking because of all of the following *except* (a) Driving is a new and complicated skill for them; (b) They have had less experience with alcohol's effects; (c) They often weigh less than adults; (d) They spend more time driving than adults do.

SPIRIT MASTER #7: FOR USE WITH ACTIVITY #41

Observation Sheet

Location:

Time of day:

Traffic conditions:

Description of pedestrian facilities (e.g., crosswalks, lights, signals, signs, overhead walks--a map may be drawn if desired):

Characteristics	*Pedestrian Type:*			
	Young Child	*Teenager*	*Adult*	*Elderly*
Handicapped				
Male				
Female				
Crossed street correctly				
Ran				
Crossed other than at intersection or crosswalk				
Not paying attention				
Crossed against light				
Caught in middle of street				
Standing in street waiting to cross				
Other:				
Other:				

Observation Sheet may be filled with check marks, hatch marks, etc.

SPIRIT MASTER #8: FOR USE WITH ACTIVITY #52

Purchase Considerations

Potential bicycle purchasers can base their selection upon their riding proficiency, the intended use of the bicycle, the amount of use anticipated, the presence or absence of safety features, the ease of use, good workmanship, and the availability of replacement parts and repair service. The following checklist may be of help.

Item	*Brand*				*Item*	*Brand*			
	A	*B*	*C*	*D*		*A*	*B*	*C*	*D*
Frame styles					Gears/ratios				
Lightweight					Constant				
Medium weight					Shifting				
Heavy duty					3-speed				
Folding					5-speed				
Girls/boys					10-speed				
					15-speed				
Frame size									
					Wheel sizes				
Handlebar types									
					Front				
Drop style					Rear				
High rise									
Tourist					Tire types				
					Thinwall/racer				
Brakes					Touring				
Caliper, front					Tractor				
Caliper, rear					Slicks				
Caliper, front/rear									
Coaster					Fenders				
Seat styles					Full				
					Partial				
Banana					None				
Bucket									
Racer					Weight/total				
Mattress									
Touring					Special equipment options				
Pedal styles									
Flat									
Trap									

Text and chart adapted from *Bicycle Safety Curriculum Guide* (University of the State of New York, State Education Department, Division of General Education).

SPIRIT MASTER #9: FOR USE WITH ACTIVITY #56

Bicycle Inspection Check Chart[a]

Item Inspected	*Lubricate*	*Tighten*	*Adjust*	*Repair/ Replace*	*Approved*
Frame tubes	▨	▨	▨		
Fork blades true	▨	▨	▨		
Handlebar tight	▨				
Extension tight	▨				
Grips tight	▨				
Bar height, angle	▨				
Saddle height, angle	▨				
Seat post	▨				
Fit, bicycle	▨				
Steering head					
Crank bearings					
Cranks, cotters	▨		▨		
Drive sprocket	▨		▨		
Driven sprocket	▨				
Chain					
Pedals (complete)	▨		▨		
Pedal bearings		▨			
Mudguards, braces	▨				
Carriers	▨				
Cleanliness 100%	▨	▨			
Wheel nuts--F & R	▨		▨		
Wheel bearings		▨			
Hub, rear bearings		▨			
Brake operation					
Tire condition--F & R	▨				
Rims--Front & Rear	▨	▨			
Spokes--Front & Rear	▨				
Tire inflation	▨	▨		▨	
Hand brakes					
Brake & gear cables					
Brake & gear levers					
Gear shifter					
Speedometer					
Generator (batteries)					
Headlight	▨				
Tail light	▨				
Reflector	▨				
Signal Device	▨				

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[a] From *Bicycle Safety Tests*, Bicycle Institute of America, New York, page 8.